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ABSTRACT

THE PURPOSE OF THE PROGRAM HAS BEEN TO PROVIDE TUTORING AND REMEDIAL SERVICES TO ASSIST NURSING STUDENTS TO GRADUATE AND ENTER THE LABOR FORCE. DURING THE FALL 1968 SEMESTER, 239 FRESHMEN OF FIVE CITY UNIVERSITY OF NEW YORK (CUNY) COLLEGES RECEIVED 1,801 HOURS OF ASSISTANCE FROM STUDENT TUTORS DRAWN FROM CUNY. DURING THE SPRING 1969 SEMESTER, 142 FRESHMEN RECEIVED 2,042 HOURS OF TUTORING. A COORDINATOR EMPLOYED PART-TIME IN EACH OF THE FIVE COLLEGES TRAINED AND GUIDED THE STUDENT TUTORS. PRELIMINARY EMPIRICAL ASSESSMENT OF THE PROGRAM, INVOLVING THE USE OF A CONTROL GROUP OF FRESHMEN OF THE YEAR PRECEDING THE PROJECT AND PROFESSIONAL JUDGMENTS LED TO CONCLUSIONS INCLUDING THE FOLLOWING: (1) TUTORING APPEARS TO HAVE A POSITIVE IMPACT ON THE ACADEMIC ACHIEVEMENT OF NURSING STUDENTS, (2) THE GREATER THE EXTENT AND/OR DURATION OF THE TUTORING, THE GREATER THE IMPACT, (3) LONG-TERM TUTORING TENDS TO BENEFIT ALL ABILITY LEVELS; SHORT TERM TUTORING BENEFITS THE BETTER STUDENTS TO A GREATER DEGREE, (4) THE SOURCE OF TUTORS IS LESS IMPORTANT THAN THEIR TRAINING AND SUPERVISION, (6) PROGRAM IMPLEMENTATION REQUIRES SUSTAINED WORK ON THE PART OF A PROFESSIONAL PERSON, AND (7) TUTORING INCREASES EGO STRENGTH. (JK)

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NURSE TUTORING STUDY
OF THE CITY UNIVERSITY OF NEW YORK

INTERIM PROGRESS REPORT

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PROJECT DIRECTOR

GRANT NO. NPG-326-01

JUNE 30, 1969

KINGSBOROUGH COMMUNITY COLLEGE

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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I. INTRODUCTION

A. Purpose

The basic and immediate purpose of the program was to provide tutoring and remedial services so that a larger percentage of nursing students might graduate and enter the labor force. The secondary purpose was investigative: to provide data which would suggest the most effective means of tutoring; to research the relationship between high school preparation (both in terms of courses taken and grades received) and the need for tutoring at the community college level, in order to suggest 1) possible changes in the subject matter entrance requirements for nursing programs and/or 2) means of early identification of those students who will need tutoring before such students encounter actual difficulty in their courses.

B. Intended Program

The program was to provide tutoring and remediation for freshman nursing students at five of the CUNY community colleges: Kingsborough, Borough of Manhattan, Bronx, Queensborough, and Staten Island. It was estimated that 300 students would require help in their first year, and half that number when they reached their sophomore year. (The program would continue a third year to complete the research.)

Tutors would be drawn from CUNY. The tutors at Kingsborough, Borough of Manhattan, and Staten Island would come from the senior college in each borough. Tutors for the other two colleges would be second year students from those colleges. At three of the colleges students could have tutoring four hours a week per subject; at two, two hours a week. (This structure was to provide data which might suggest the most effective means of tutoring.)

Tutoring would be made available upon the request of the nursing student or upon suggestion of the subject instructor or the local Head of Nursing. Tutoring would be given in all subjects, with emphasis on the biological sciences.

Each participating college would employ a part time coordinator to administer its program and to secure data for analysis. Administration of the entire program and the appropriate research functions would be undertaken by Kingsborough Community College.

CHAPTER II

ACCOMPLISHMENTS TO DATE

A. Installation of Program

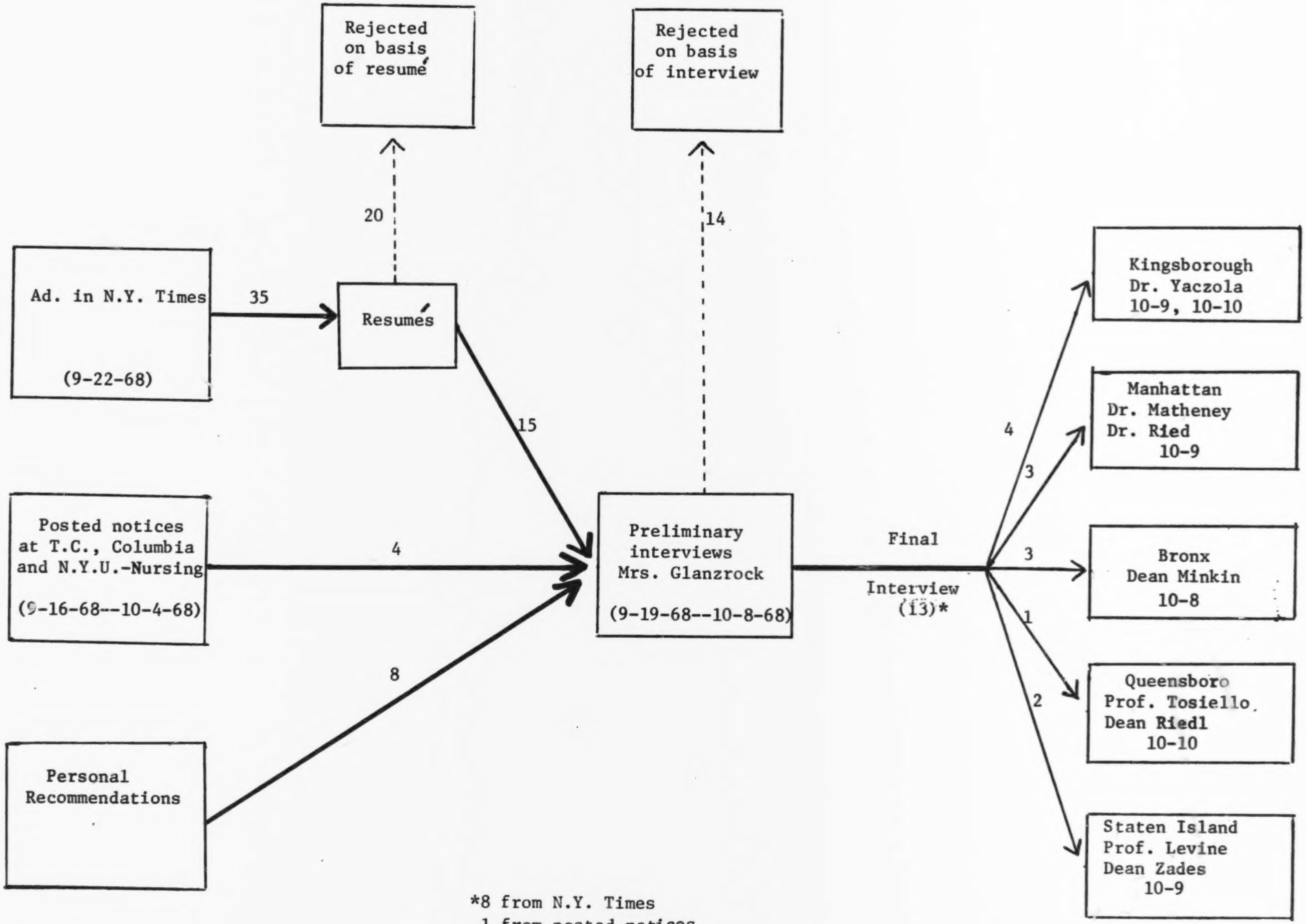
1. Recruitment of Personnel

The selection of a director for the Nurse Tutoring Study was confirmed the first week in September. On September 22nd, an ad was taken in the New York Times by the director to recruit coordinators for the five community colleges where the program would be in operation. In addition, notices were posted at Teachers' College, Columbia and the N.Y.U. School of Nursing.

A total of 47 persons applied for the positions, 20 of whom were eliminated on the basis of resumés. Initial interviews with applicants were held from September 19th to October 8th. Following screening and elimination by the program director, prospects recommended for hiring were directed to the participating colleges for final interview and approval. The five coordinators were chosen from thirteen applicants referred.

The immediate work of the coordinators was the recruitment of tutors, and students in need of instructional help. Recruitment was carried on by the posting of notices and by the direct appeal of instructors to their students. In the three community colleges where tutors were to be drawn from the body of upper-classmen, the mechanics of recruitment were simultaneous for both tutors and tutees. Where tutors were to be drawn from the senior colleges, coordinators had to carry on dual programs of recruitment. Posted notices and the appeals of faculty members had to be augmented by ads in the campus newspapers.

PROCEDURE FOR HIRING COORDINATORS


Rejected on basis of resumé
Rejected on basis of interview
20
14
Ad. in N.Y. Times (9-22-68)
35
Resumés
15
Posted notices at T.C., Columbia and N.Y.U.-Nursing (9-16-68--10-4-68)
4
Personal Recommendations
8
Preliminary interviews Mrs. Glanzrock (9-19-68--10-8-68)
Final Interview (13)*
4
3
3
1
2
Kingsborough Dr. Yaczola 10-9, 10-10
Manhattan Dr. Matheney Dr. Ried 10-9
Bronx Dean Minkin 10-8
Queensboro Prof. Tosiello Dean Riedl 10-10
Staten Island Prof. Levine Dean Zades 10-9

*8 from N.Y. Times
1 from posted notices
4 from personal recommendations

2. Training Tutors

The training of tutors we considered an essential part of the program. Following enrollment, tutors attended an orientation meeting where the program's aims, its source of funding, and its experimental design were discussed.

The main purpose of the meeting was, however, to lead the tutor to an awareness of what good teaching is, and by extension, to an awareness of what good tutoring was likely to be. It was emphasized that tutoring was the equivalent of teaching, and that the nursing student's comprehension of course material was her tutor's primary responsibility. We did not speak in particular of the disadvantaged student or her handicaps. We thought it was imperative that the tutor first think through the experiences of learning and teaching as they are.

The discussion centered around good teachers and bad teachers and the characteristics that distinguish good teaching from bad. Tutors pointed out that good teachers always explained things, whereas bad teachers didn't care if you understood or not; they flaunted their knowledge; they were deprecatory when you were slow to understand something. It was obvious that tutors spoke out of their experience, and it was apparent that, as tutors, they wanted to avoid the teaching deficiencies they had often put up with in the classroom.

From this we went on to practice in explanation. Students volunteered to explain such questions as why a minus multiplied by a plus gives a minus; what causes the seasons to change; the difference between osmosis and diffusion; and why people in the southern hemisphere are not walking upside down.

The next part of the orientation was a discussion about how one knows whether the other person understands. It was pointed out that asking someone if he understands always produces a nod. Asking questions was better, but even better than that was having the other person explain the material back to you. This really indicates whether he has learned it, but as important - it gives him a chance to show what he knows. Mastery gives strength.

The tutors were discouraged from "doing their thing" on the students' time. Our primary goal was helping students pass their courses, and the best way to do it was through first-rate instruction. It was pointed out that many other positive effects accrue in the tutoring situation, but they are the result of teaching and learning, not deliberate therapy.

After the orientation, there was an additional meeting in which the tutors got their assignments and met some of the instructors.

The tutors started working, and regular training began. After each tutoring session, the tutor had to fill out a rather complex report form which called for both an analysis and evaluation of the session. The form was filled out with the help of the coordinator; the content taught, the methods used, the responsiveness of the tutees, and the tone of the session were discussed candidly, and in the process the coordinator was able to strengthen the tutor where he was weak. In these post-tutoring conferences the stress was more on teaching than on the problems of individual tutees. (After the fifth or sixth conference, the tutor was permitted to complete the report himself.)

By the tutor's third week of work, the coordinator also began to observe him during his tutoring sessions. Each visit was immediately followed by a conference in which the coordinator and tutor discussed specific aspects of the session.

B. Problems of Installation and Implementation

1. Starting Late

One of the major problems inherent in the operation of the program was the delay in getting started.

The coordinators were not selected until the 14th of October. Then they had to recruit students and tutors, arrange schedules and train tutors. Miraculously, tutoring began at Bronx Community College the first week in November and somewhat later at the other colleges.

Although almost all students requesting tutoring were finally accommodated, the number of hours was limited - an average of 6.4 hours a student in bio, and 7.5 in all subjects combined. The limited amount of tutoring prevented a fair proportion of shaky C's and D's from failing and helped a small number of F's pass. But many F's could not be helped substantially. The few hours at the end of the term was of least use to very poor students because 1) much of the material from the first part had to remain unknown, which meant that the tutor could take nothing for granted, and 2) most of the really poor students had made such low grades before tutoring that even those who did reasonably well towards the end could not muster a passing average. Thus those students for whom the program was designed - the poorest in academic ability - were injured most by the late start.

2. Part-time Coordinators

Many of our serious problems resulted from the fact that the coordinators were part-time personnel. Their hours were: Bronx 20; Manhattan and Kingsborough 15 each; Queensborough and Staten Island 10 each. The hours were computed on the basis of the number of tutees expected and the number of hours of tutoring available to them in the experimental design.

All of the coordinators (except the one who wasn't doing his job very well) found that there wasn't really enough time to do the things required for full

implementation of the program. For example, just arranging tutoring appointments for sixty students and approximately fifteen tutors takes about 20 hours. This is just mechanics - finding one tutor and two students (who have the same teacher) free at one time. It does not include interviews with students-necessary the first semester to get a feel of academic ability and temperament so as to make more efficient tutoring teams. The job of training the tutors, which is central to the success of the program, must continue long after the orientation and must be systematic if it is to have any effect. This kind of intense and continuing involvement by the coordinator is not indicated in the Grant. What is suggested there is that after the coordinator sets up the program, her responsibilities toward it are administrative, that she serves as a broker between tutors and tutees, and a meeting scheduler for tutors and faculty. The job as conceived this way can be done within the hours alloted by the Grant, but it will not sustain a tutoring program.
A greater number of hours makes the operation better because as the coordinator spends more time at the college he gets to know people and procedures that make his work easier. In addition, the coordinator who is seen often by the students is regarded as part of the Nursing Department and this helps in establishing trust.

3. Space

It was decided very early in the project that all tutoring sessions would be held on college premises*- both to insure safety and to enable us to supervise (train) the tutors. Lounges, study areas, etc. were not adequate because they lacked blackboard and privacy; classrooms were the best, but they were often in short supply in schools that are already overcrowded.

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*During Christmas, and on the week-ends before finals, some coordinators permitted sessions in larger college libraries.

Summary and Conclusion

The late start resulted in a limited number of tutoring hours given during the last half of the first semester. Thus, those students for whom the program was designed received inadequate service.

The coordinator's beginning work - recruiting tutees and tutors, training tutors, arranging schedules and procuring space, and her long-term work, supervising tutors, requires more hours than are alloted by the Grant.

C. Utilization of Program

During the first semester, 269 students requested tutoring. (See Table I.) Biology was in greatest demand (238 requests) with nursing and psychology next (48,47). (The fact that the program didn't begin until the middle of November gives a good indication of real need.) The total number of applicants (269) was not far from that projected by the Heads of Nursing (300), but the range of requests varied from school to school.

As of November 27, there were 182 tutees enrolled in the five programs. By the second week of December, the complement of tutees had grown to 210 and the number of tutors was 64. This was peak enrollment during the first semester. At the semester's close, a total of 239 students had received an aggregate of 1,801 hours of tutorial instruction, an average of 7.5 hrs. a student.

The difference between the number of students who requested tutoring in each subject and the number who were actually tutored (as indicated in a comparison of Table I and Table IIA) is not the number who were turned away. Some withdrew their requests, a few never kept their first appointment, and some were turned away. Every student who requested tutoring in bio was accommodated. However, because of the shortage of tutors, in the three colleges in which four hours per student per subject were allocated, most students got only two hours.

During the spring semester, the average number of tutorial hours provided each student increased from 7.5 to 14.3. We had more tutors (73 all together), but fewer tutees - in the upper freshmen group. This was due to the number of students who had failed bio (our major source of tutees). Except at Kingsborough, those who fail bio are not permitted to continue in the nursing program until they pass it. In one college it means losing matriculation and going at night.

Those who were able to continue during the day were not "affiliated" with nursing, and in some cases didn't realize they were still entitled to tutoring. The effect can be seen by comparing Tables IIA and IIB. The number of students tutored in bio during the fall semester was 190; in the spring semester it was 99; the number at all colleges was markedly less, except at Kingsborough where students who fail Bio 1 are permitted to take Bio 2. Obviously the students who passed Bio 1 and went on to Bio 2 were a select group and needed less tutoring.

Whereas in the first semester, the average hours per student didn't vary too much from one subject to another (bio: 6.5, psych: 5.7, nursing: 6.6, math: 4.6, English: 10 - but only 10 students tutored), in the second semester there is a marked difference between the average hours in bio - 13.8, and the average hours in other subjects - about 8. We started on time and with the exception of one school, had enough tutors, so that this probably approximates what the rate of service would be in any Spring semester.

We provided tutoring for the spring entrants at Bronx Community College in order to see the effects of a full semester of tutoring on a freshman class - (the situation outlined in the grant). The coordinator had her administrative routines perfected, had an adequate number of trained tutors, and the Head of Nursing was extremely enthusiastic. 42 students received an aggregate of 637 hours of tutoring - an average of 15*hours per student -as compared to an average 8.5 hours a student in the fall class. In the key subject, bio, the spring students received an average of 13 hours as compared to an average of 5.8 for the fall students. It showed up, of course, in their grades. In the fall class, 19 out of 206 failed bio (9.2%); in the spring class, 1 out of 110 (.9%) failed. (The failures in nursing were reduced by half)

* The tutoring program at Bronx Community College being as solid as it is, this 15 hours average per student is as accurate a guage as we'll get of utilization in a fall program. We did not incorporate it directly into the budget request, as it seemed low for a starting figure.

Tutors worked 1,248 hours the first semester and 2,111½ hours the second, a total of 3,359½ hours. (See Table III)

During the fall semester, the program was in operation for 7 weeks at Manhattan, Bronx and Queensborough, and for 6 weeks at Kingsborough and Staten Island. During the spring semester the program was in operation for 10 weeks at Staten Island, for 11 weeks at Bronx and Queensborough, for 12 weeks at Manhattan, and for 13 weeks at Kingsborough.

Summary and Conclusions

From fall to spring - the overall average number of hours per student increased from 7.5 to 14.3. The average number of hours in biology increased from 6.5 to 13.8. The average number of hours in all subjects, except biology, increased from 6.2 to 8.

The number of tutees (from the fall '68 entrants) decreased 40%. This reflects the overall attrition rate and the situation that results from failure in Biology 1: except at one college, those who failed were no longer in nursing, and many of them did not avail themselves of the tutoring service for any subject.

Running the program with the spring entrants at Bronx Community College indicates that 15-20 hours per student is approximately the number of hours a freshman will utilize.

TABLE I

REQUESTS FOR TUTORING:
Fall 1968

	Kings.	Man.	Bronx	Queens.	S.I.	Total no. of requests	
bio.	* 62	39	67	41	29	238	
math.	7	32	-	-	-	39	
psych.	10	1	23	6	7	47	
English	3	7	16	-	3	29	
nursing	10	-	38	-	-	48	
reading	2	-	-	-	-	2	
soc.	-	4	-	-	3	7	
Total no. of requests in each college	94	83	144	47	42	410	Grand total of all requests
No. of students applying in each college	62	53	72	46	36	269	Total no. of students applying

* Each cell in the table gives the number of students who requested tutoring in that subject. The discrepancy between the total number of requests and the number of students applying in each college results from the fact that some students requested tutoring in more than one subject.

TABLE II

(A) TUTORING HOURS RECEIVED BY LOWER FRESHMEN FALL '68

	KINGS		MAN.		BRONX		QUEENS		S.I.		TOTAL	
	Hrs.	St.	Hrs.	St.	Hrs.	St.	Hrs.	St.	Hrs.	St.		
BIO	420½	(54)	83	(14)	343	(59)	249	(35)	143	(28)	1238½	(190)
PSYCH	37½	(5)			108	(20)	12	(5)			157½	(30)
URSING					251	(37)					251	(37)
MATH	36	(6)	38	(10)							74	(16)
ENG			20	(2)	54	(4)			6	(2)	80	(8)
GRAND TOTAL	494	*(55)	141	(26)	756	*(89)	261	*(39)	149	(30)	1801	(239)

(B) TUTORING HOURS RECEIVED BY UPPER FRESHMEN SPRING '69

	KINGS		MAN.		BRONX		QUEENS		S.I.		TOTAL	
	Hrs.	St.	Hrs.	St.	Hrs.	St.	Hrs.	St.	Hrs.	St.		
BIO	1,011	(53)	63 3/4	(8)	135	(18)	150	(18)	20	(3)	1379 3/4	(99)
PSYCH	118½	(12)			235	(34)					353½	(46)
URSING	129	(12)	36	(7)							165	(19)
MATH	7	(2)	50	(3)			4	(2)			61	(7)
ENG	30	(4)	36	(5)	18	(3)					84	(12)
GRAND TOTAL	1,295	*(62)	185 3/4	*(16)	388	*(41)	154	(20)	20	(3)	2,042**	(142)

* Some students were tutored in more than one subject.

** An additional 1,125 hours (bio and nursing) were received by nursing students not in the original experimental group,- primarily the Spring '69 entrants at Bronx Community College.

TABLE III

PAYROLL REPORT: TUTORING HOURS

FALL SEMESTER (1968)

	NOV.		DEC.		JAN.	
	P.1*	P.2	P.1	P.2	P.1	Total Hours
Kings.	0	33	86	73½	75½	268
Man.	9½	40	39	16½	12½	117½
Bronx	124½	157	177	61	33½	553
Queens	24	58	67½	28	31	208½
S.I.	3	23	42	14	19	101
TOTAL HOURS	161	311	411½	193	171½	1248

SPRING SEMESTER (1969)

	FEB.	MARCH		APRIL		MAY		
	P.2	P.1	P.2	P.1	P.2	P.1	P.2	Total Hours
Kings.	72	119½	134½	47	174½	147	111	805½
Man.	17	22	28	46	39	30	15	196
Bronx	0	203½	189	80½	237½	161½	51	923
Queens	0	4	6	4	21	43	17	95
S.I.	0	0	24	12	25	12	19	92
TOTAL HOURS	89	349	381½	189½	497	393½	213	2111½

* Each month is divided into two pay periods, P.1 and P.2

CHAPTER III

PRELIMINARY EMPIRICAL ASSESSMENT OF THE EFFECTIVENESS OF THE NURSING TUTORING PROGRAM

Introduction

While empirical assessment of the program, based on hard data rather than exclusively on professional judgments, is not expected at this early date (i.e., after only the first year of operation), it behooves us to attempt to provide as much evaluative data as possible. Accordingly, the purpose of this chapter is to analyze the presently available outcome data, without rigid concern at this time for significant issues bearing on the definitiveness of the findings.

Due to the proximity of the due date of this report and the availibility of certain outcome data (especially second semester grades), a number of primary analyses lack complete data and/or have limited sample sizes of the groups under study; thus, tests of statistical significance of the findings were not performed at this time. Accordingly, all findings (and their interpretations) presented herein should be regarded as tentative, subject to traditional tests of their significance at a later date when they maybe replicated with complete data. That is, subsequent analyses, after the second and third years of study, will naturally meet the appropriate criteria upon which to base conclusive interpretations regarding the value of the tutoring program.

Logic of Analyses

The two issues central to the assessment of the value of the tutoring program are: (1) the selection of appropriate criterion measures which would reflect the outcomes of the tutoring service. (2) The designation of an appropriate control group that may serve as a "base line" to which the tutored group's outcomes may be compared.

1. Appropriate Criteria to Reflect Value of Tutoring

The two outcome measures currently available for analysis are the 1st and 2nd semester's final grades for a given subject (e.g., Bio 1 and Bio 2). In order to determine the extent to which these grades reflect improved performance, however, we need a suitable base-line measure for each. The baseline measure chosen for the 1st semester's final grade was the mid-term mark of the first semester. This was chosen for two reasons. First, tutees did not actually begin receiving tutoring services until just after the mid-term, due to the necessary lead time required to secure tutors, and to develop and operationalize the program. (Thus, gains or losses from mid-term-to-final grades reflect the outcome of the short-term tutoring actually received). Secondly, there were no earlier base-line measures available.

The baseline measure chosen for the second semester's final grades were the first semester's final grades. The difference between these two grades was viewed as the key criterion to reflect the value of the tutoring program; i.e., as very little tutoring was actually provided during the first semester, second semester improvements were regarded as the primary data to reflect the outcomes of substantive tutoring. Treating both sets of data (i.e., mid-term-to-final grade changes in the first semester, and final grade changes from the first-to-second semester) permits tentative conclusions as to the effectiveness of short-vs. long term tutoring.

The utilization of baseline measures permits us not only to look at the change in the overall distribution of grades from one point in time to the next, but to see which level of student (e.g., C,D, etc.) profits most (or least) from the service.

2. Appropriate Control Group

At first glance, the obvious control group to whom '68 entrants who received tutoring may be compared are the non-tutored '68 entrants. Granted the latter did not receive the experimental treatment, the question arises as to whether these two groups are otherwise equal. I.e., what if students who chose not to be tutored were brighter?

Selecting outcome criteria that employ baselines (pre-measures) has the additional advantage of enabling us to equate the baseline grade levels of the tutored vs. the non-tutored. (That is, regardless of whether or not the tutees had poorer 1st semester mid-term grades than the non-tutored, we may compare the final grades of for example, the students within each group who received C as mid-term marks; similarly for those receiving D, F, etc.). While this procedure serves to equate the mid-term grades (i.e., "Abilities") of the two groups, the question may still be asked, "Is the B student who chose to take the tutoring service more motivated to succeed than his B counterpart who declined the invitation? Or is his ability not really as good (i.e., a "Shaky B") as his non-tutored counterpart?" To the extent that the receipt of the tutoring service was based on choice, and not random assignment, to that extent we cannot conclude that the '68 non-tutored students are an appropriate control group to utilize in evaluating our tutoring treatment.

To compensate for the possible differences in outcomes between the '68 entrants who were tutored or not, due to possible achievement-relevant correlates of the choice variable, an alternate control group may be utilized; that is, to compare the total '67 entrants (all non-tutored) to the total '68 entrants (tutored and non-tutored) on the two criteria previously described. This choice, however, suffers from certain other potentially biasing factors that do not apply to the former comparison.

While this comparison need not be concerned with the differences between tutees and non-tutored, it does, however, present questions regarding the differences between the two classes that bear on their respective grade outcomes. i.e., to what extent was their '67 class a brighter one? To what extent were the instructors and/or grading systems more lenient for the '67 class?, etc. Again, the utilization of outcome criteria that reflect pre-measures serves to satisfy these restraints considerably when we compare, for example, the post-measures of'67 and '68 students who achieved the same pre-measure; e.g., comparing the final grades for the 1st semester of those '67 students who received D's as mid-term marks to the final grades of those '68 students who also received D's as mid-term marks. Granted unknown biases associated with the year's (67 to 68) differences still remain, the apparently stronger source of bias occurs in the 68 tutee vs. non-tutored comparison; namely, that associated with choice of the tutoring service.

By its very nature, however, the 67 vs. 68 total class comparison suffers from a contamination of another sort. Outcome data for the entire '68 class, treated as a single group (i.e., not concerned with whether the tutees were better or worse risks to start with than the non-tutored), reflects the impact of providing tutoring services to only a portion of the '68 class. Thus, the difference in outcomes between the '67 and '68 total classes, assuming they are equal to start with, will reflect the effectiveness of offering rather than providing the tutoring service to a total class. Thus, while the '67 vs. '68 total class comparison appears more appropriate to reflect the value of the program with regard to the extent of contamination, it appears less appropriate in reflecting the extent of outcome associated with the actual receipt of tutoring. That is, as the performance of the total '67 group is compared to that of the total '68 total group, grade point gains that occur for the tutees of the '68 class will tend to be averaged out (i.e., "shared with the non-tutored"). If it were possible to distinguish which of the '67 students would have chosen tutoring if it were offered at that time, then '68 tutees could be compared to 67's who-would-have-chosen, the ideal comparison.

3. Summary

In summary, both comparisons will be made ('68 tutees vs. '68 non-tutored, and total '67 class vs. total '68 class), utilizing two sets of data (short-term effects: 1st semester's mid-term-to-final grade changes, and long-term effects: Final grade changes from 1st semester to 2nd semester) as criteria to reflect the value of the tutoring program.

As discussed above, both sets of comparisons suffer from limitations (i.e., the 67 vs. 68 from a bias in reflecting the extent of tutoring gain, the 68 tutees vs. non-tutored from a bias regarding the equality of the groups), which should be kept in mind throughout the data analyses that follow.

Analysis of Data

For each type of comparison (68 tutees vs. 68 non-tutored, and 67 total class vs. 68 total class), both criteria measures will be utilized (1st semester's mid-term-to-final grade changes, and final grade changes from 1st to 2nd semester); the former criterion reflecting the impact of short-term tutoring, the latter reflecting the impact of long-term tutoring. For each criterion, the comparison of the experimental and control groups will be based on: (1) the overall change in each group's distribution of grades from pre-to post-measure, focusing on the reduction in % of F's; and (2) the average grade point change from pre-to post-measure for each of the pre-measure grade levels.*

*This analysis plan, representing that which will ultimately be utilized in subsequent reports, will be followed here wherever possible; i.e., certain of the data required for each school were not ready at the time of preparation of this report. Thus, those analyses based on "incomplete data" should be viewed as the model for subsequent analytical reports of a similar nature.

These two indices of change* will be examined as they apply to all schools (combined), as well as to Kingsborough Community College separately. The reason for the separate treatment of Kingsborough is that it is the only school for which the required data for all of the intended analyses is available.**

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*The distribution changes reflect the *number* (i.e., percent) of individuals who move in one direction or another, while the average grade point changes corresponding to each pre-measure grade level, reflect the *magnitude* of change for *each grade level*; i.e., the latter reveals *where* the tutoring has its greatest or least impact.

**This reflects the fact that the central project staff were home-based at Kingsborough Community College.

Results*

I. 68 Tutees Vs. 68 Non-Tutored: Impact of Short-Term Tutoring

Overall Grade Distribution Change From Mid-Term-To- Final in 1st Semester**

1. For all schools (combined) the overall grade distribution change from mid-term to final tends to be more positive for the tutees. Table I reveals that while the tutees exhibited poorer mid-term grades than the non-tutored, their final grades reflect greater gains; this is especially pronounced for the increase in the frequency of final grade C's from lower levels of mid-term grades. No difference between the tutees and non-tutored is revealed, however, with regard to the reduction in F's. Combining mid-term A's & B's as good grades, and D's and F's as poor grades, table IA reveals a somewhat more positive mid-term-to-final shift in the ratio of good to poor grades for the tutees.

*All tables referred to appear in an appendix which immediately follows this chapter.

**All Analyses that follow were made only for Biology grades, with respect to tutoring in Biology; during the '68 year, especially during the 1st semester when the program was still being developed, the limited # of students who chose tutoring in other subjects (e.g., Psychology) precluded even gross treatment of the effects of tutoring in these courses.

2. For Kingsborough, the overall grade distribution change from mid-term-to-final tends to be more positive for the non-tutored, especially with regard to the diminution of poorer grades. Table I reveals that while both tutees & non-tutored exhibited substantial gains from mid-term to final, the non-tutees exhibited greater movement to higher final grades, as well as a greater reduction in the % of F's. Combining mid-term A's & B's as good grades, and D's & F's as poor grades, Table IA more clearly depicts these findings. It shows a more positive shift in the ratio of good to poor grades from mid-term-to-final for the non-tutored, reflecting primarily a greater diminution of poorer grades.

3. The five schools rank* from most-to-least positive as follows with regard to mid-term-to-final distribution change for tutees relative to that for the non-tutored: Manhattan (3.20*), Staten Island (2.70), Queensborough (1.32), Bronx (1.31) and Kingsborough (.78). (It must be kept in mind that the above ranks reflect the outcomes of short-term tutoring (i.e., ½ of one semester)

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*These ranks were based on the following statistic: The ratio of tutees final % A & B's to final % D & F's/the ratio of tutees mid-term % A & B's to mid-term % D & F's ÷ the ratio of non-tutored final % A & B's to final % D & F's/ the ratio of non-tutored mid-term % A & B's to mid-term % D & F's. This statistic reflects the degree to which the mid-term-to-final distribution change for tutees is more positive than that for the non-tutored.

relative to the non-tutored, wherein, for example, while Staten Island is ranked second, its distribution change for its tutees, per se, is least positive of all the schools). Aside from the ranks of the schools, it is worth noting that four of the five reveal better grade distribution changes for the tutees as compared to the non-tutored; i.e., the statistic upon which the rankings were based is greater than 1.00 for these four schools.

As regards the tutees' reduction in % F's from mid-term-to-final, compared to the non-tutored, employing a similar statistic (i.e., the ratio of tutee % mid-term-to-% final F's ÷ the ratio of non-tutored % midterm-to-% final F's) reveals the following ranks of the schools: Bronx (2.62), Staten Island (1.83), Queensborough (.99), Manhattan (.97) & Kingsborough (.65). It is worth noting that two of the five schools reveal more reduction in % F's for the tutees as compared to the non-tutored; i.e., the statistic upon which the rankings were based is greater than 1.00 for the two schools.

Average Grade Point Change From Mid-Term-To-Final For Each Mid-Term Grade Level

1. For all schools (combined), tutored students possessing B & C mid-term grades, exhibited more positive average grade point changes from mid-term-to-final than their non-tutored B & C respective counterparts; the reverse was found for D (mid-term) students, with no difference for F (mid-term) students. While poorer students in general tend to exhibit greater improvement than better ones, Table II indicates that short-term tutoring seems to benefit only the relatively better students and not the poor ones (relative to the "normal" grade point gains manifested without tutoring). (Parenthetically, Table II also reveals that the tutored students were a poorer group to start with than the non-tutored students: their mid-term grade distribution is considerably poorer than that for those students who did not receive tutoring).

2. For Kingsborough, non-tutored A through D students exhibited more positive average grade point changes from mid-term-to-final than their respective (mid-term grade level) tutored counterparts; no difference, however, was found for (mid-term) F students. Thus, for Kingsborough, short-term tutoring appears to have no positive impact on grade changes.

3. The five schools rank as follows with regard to the average grade point changes from mid-term-to-final exhibited by each grade level of the tutored relative to their respective non-tutored counterparts: Bronx, Queensborough, Staten Island, Manhattan & Kingsborough; the first three schools revealing greater gains for the tutored compared to the non-tutored, almost consistently across the B through F mid-term levels.

These findings indicate that for some (3) schools, short-term tutoring does indeed have an impact on D & F students.

Summary

The '68 tutee vs'68 non-tutored comparison reveals that short-term tutoring (provided from mid-term-to-final of the first semester) appears to have a positive impact on Bio 1 Final grades; more so for students exhibiting higher mid-term grade levels, than for F students. This was found for all schools except Kingsborough, where the short-term tutoring did not reveal a positive impact.

II. 68 Tutees vs. 68 Non-Tutored: Impact of Long-Term Tutoring

Overall Final Grade Distribution Changes From 1st Semester to 2nd Semester

1. For Kingsborough,* the overall final grade distribution change from Biology 1 to Biology 2 was clearly better for tutees as compared to non-tutored. Table III reveals that while the overall Bio 2 Grade distribution for the non-tutored tends to be slightly poorer than their Biology 1 grade distribution, the reverse is manifested strongly for the tutored; in particular, the % of F's diminishes considerably more so for the tutored. Again combining mid-term A & B's as good grades, and D & F's as poor grades, Table III sharply reveals a more positive shift in the ratio of good to poor final grades from Bio 1-to-Bio 2 for the tutored. Whereas the non-tutored exhibited 35% A & B's and 30% D & F's in Bio 1, compared to 34% and 28%, respectively, in Bio 2, the tutored exhibited 6% (A & B) and 64% (D & F) in Bio 1, compared to 28% and and 36% respectively in Bio 2 or, in another way, the ratio of good to poor grades increased 8 fold from Bio 1 to Bio 2 for tutees, while remaining the same for non-tutees. These results at Kingsborough, coupled with the previously discussed results of short-term tutoring at this school, clearly indicate that long-term tutoring has substantial value, while the value of short-term tutoring is dubious.

   It is also worth highlighting the fact that Kingsborough is the only school which permits Bio 1 failures to go on to Bio 2; thereby truly enabling a test of the value of the tutoring program. These findings justify the practice and indicate that it should be attempted at the other schools.

Average Final Grade Point Change From 1st To 2nd Semester For Each 1st Semester Final Grade Level

1. For Kingsborough** for all Bio 1 final grade point levels, tutees exhibited more positive average grade point changes from Bio 1 to Bio 2 than their respective non-tutored (Bio 1 final grade) counterparts. Table IV reveals that the value of long-term

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*As stated earlier, only Kingsborough was available for this analysis at the time of preparation of this report.

**For this analysis also, only Kingsborough data were available.

tutoring is reflected in the magnitude of grade point changes from one semester to the next, for all grade levels. In addition, the F students reveal the greatest impact of the tutoring. Further examination of table IV reveals that the B & C non-tutored students exhibit an average loss in grade point level, while the reverse is true for B & C tutees.

Summary

The '68 tutee vs. "68 non-tutored comparison, available only for Kingsborough, reveals that long-term tutoring clearly has a positive impact on Biology 2 final grades. While the tutoring service continued to enhance the achievement of the better students from 1st to 2nd semester, long term tutoring had its greatest impact on students who failed Bio 1. This, coupled with the previous set of findings, indicates that while better students are more readily able to profit from even limited (short-term) tutoring, poorer students require more extensive tutoring services for its value to have an impact.

III. '67 Total Class vs. '68 Total Class: Impact of Short-Term Tutoring

Overall Grade Distribution Changes From Mid-Term to Final In 1st Semester

1. For all schools combined, the overall grade distribution change from mid-term to final tends to be more positive for the '67 class, compared to '68 class. Table V reveals that while the '67 class exhibited a similar pattern of mid-term grades as the '68 class, their final grades reflect somewhat greater gains; this is especially pronounced in the frequency of final grade B's from lower levels of mid-term grades. No difference is revealed between the '67 & '68 classes, however, with regard to the reduction in F's. Combining mid-term A's & B's as good grades, and D's & F's as poor grades, table VA reveals this greater shift in the ratio of good to poor grades, from mid-term to final for the '67 class, reflecting primarily a greater enchancement of better grades.

2. For Kingsborough, the overall grade distribution change from mid-term to final is more positive for the '68 class, compared to the '67 class. Table V reveals that while the '68 class exhibited poorer mid-term grades than the '67 class, their final grades reflected greater gains. This was especially evident for the reduction in F's; i.e., while the '67 class exhibited a slight reduction in % mid-term-to-final F's (30 to 25), the '68 class' F reduction was substantial (47 to 23). Table VA reveals a markedly greater enhancement of the ratio of good to poor grades from midterm to final for the '68 class, reflecting greater gains in higher grades as well as a greater reduction in poorer grades.

3. The schools* rank from most-to-least positive as follows with regard to the '68 class' grade changes from mid-term-to-final

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*The '67 data for Manhattan were not available.

relative to the '67 class:** Kingsborough (1.71), Bronx (.67), Staten Island (.44) and Queensborough (.33). Aside from the relative rankings of the schools, only Kingsborough reveals a better grade distribution change for the '68 as compared to the '67 class.

As regards the '68 class' reduction in % F's from mid-term-to-final compared to the '67 class, employing a similar statistic*** reveals the following ranks of the schools: Staten Island (6.95), Kingsborough (1.70), Bronx (.77) and Queensborough (.42). It is worth noting that two of the four schools (available for this analysis) reveal more reduction in % F's for the '68 class as compared to the '67 class; i.e., the statistic upon which the rankings were based is greater than 1.00 for the two schools.

Average Grade Point Change From Mid-Term-To-Final For Each Mid-term Grade Level

1. For all schools (combined), for each mid-term grade level, the '67 class exhibited a slightly more positive average grade point change from mid-term-to-final than their '68 counterparts. Table VI reveals this finding which indicates the dubious value of short-term tutoring.

2. For Kingsborough, '68 B through D (mid-term) students exhibited more positive average grade point changes from mid-term-to-final than their respective '67 counterparts; no difference was found, however, for (mid-term) F students. Thus, short-term tutoring appeared to have some positive impact on Kingsborough students.

3. The schools**** ranked as follows with regard to average grade point changes exhibited by all grade levels from midterm-to-final of the '68 students, relative to their respective '67 counterparts: Kingsborough, Queensborough, Staten Island and Bronx. Only Kingsborough, however, revealed more positive average grade point changes for the '68 as compared to the '67 class. Table VI further reveals that for no school was the average grade point changes exhibited by the '68 F Students greater than that exhibited by the '67 F students, indicating the lack of value of short-term tutoring for the poorest grade levels.

Summary

The '67 total class vs. the '68 total class comparison reveals that short-term tutoring does not appear to have much of a positive-impact on Bio 1 grades; Kingsborough was the only exception to this general finding. Across all schools, however, short-term tutoring had no positive impact on the final grade levels attained by mid-term failures.

**In ranking the schools, the same statistic was applied as earlier, substituting '68 & '67 class for tutored & non-tutored, respectively.

***As described earlier, this is the ratio of % mid-term F's to % final F's for the '68 class ÷ the ratio of % mid-term F's to % Final F's for the '67 Class.

**** The data from Manhattan were not available for this analysis.

IV. '67 Total Class vs. '68 Total Class: Impact of Long-Term Tutoring

Overall Final Grade Distribution Changes From 1st Semester to 2nd Semester

1. For all schools (combined), the overall grade distribution change from Biology 1 to Biology 2 was similar for the '67 and '68 classes, with a slight tendency for the '68 class to exhibit greater movement into the higher grade levels and the '67 class to exhibit less movement into the lower grade levels. (See Tables VII and VIIA). Table VII further reveals that the reduction in % F's for the '67 class was twice as great as that for the '68 class; the latter showing the same % of F's for Bio 1 and Bio 2. (It must be kept in mind, however, that this analysis is "biased" in the sense that, as stated earlier, Kingsborough's '68 tutees who failed Bio 1 were permitted to go on to Bio 2; that is, as this was not the case for Kingsborough '67 students, to the degree to which Kingsborough's Bio 1 F's failed Bio 2, to that degree will the present analysis reveal the '67 total class doing better than the '68 total class).

2. For Kingsborough, the overall final grade distribution change from Bio 1 to Bio 2 reflects greater D reduction for the '68 class and greater F reduction for the '67 class. While Table VII reveals the % F reduction to be substantially more for the '67 class*, Table VIIA shows that the '68 class exhibited a more positive shift in the ratio of good to poor final grades from Bio 1 to Bio 2; the latter primarily reflects the greater % reduction in D grades. (D and F) for the '68 class.

*As described in the preceding analysis for all schools (combined), the same "bias" in favor of the '67 class applies here to an even greater extent, i.e., the Kingsborough analysis reflects this bias "undiluted" across all schools.

3. The schools rank* from most-to-least positive as follows with regard to the 68 class'final grade changes from Bio 1 to Bio 2 relative to the '67 class: Manhattan (70.50)**, Bronx (2.13), Kingsborough (1.30) and Queensborough (.17). Utilizing the same statistic described earlier to reflect the extent to which the '68 class revealed more positive Bio 1-to-Bio 2 changes than the '67 class, upon which the rankings were based, three of the four schools exhibit more positive grade level movement from Bio 1 to Bio 2 for their '68 as compared to their '67 classes as regards the '68 class' reduction in % F's from Bio 1-to Bio 2, compared to the '67 class, the schools rank as follows= Manhattan (7.64**), Bronx (3.00), Kingsborough (.56), Queensborough (.18); two of the four schools reveal more reduction in % F's from Bio 1 to Bio 2 for the '68 as compared to the '67 class.

*The data from Staten Island were not available for this analysis.
**As explained in the footnote to Table VII, the extremely positive finding for Manhattan undoubtedly reflects the fact that the '68 class received the more difficult Anatomy and Physiology in the first semester, and the easier general Biology in the second semester, with the reverse sequence given to the '67 class, i.e., the '68 students should have done much better in the 2nd semester,irrespective of tutoring.

Average Final Grade Point Change From 1st-to 2nd Semester For Each 1st Semester Final Grade Level.

1. For Kingsborough*, the '68 A, C and D (Bio 1) students exhibited more positive average grade point changes from Bio 1-to-Bio 2 than their '67 counterparts; the reverse being true for B and F students. (Table VIII). (Considering the findings of the earlier analysis dealing with the same criterion for '68 tutees compared to '68 non-tutored (where the F tutees did better than the F non-tutored), it appears as if the present finding; that '67 F students did better than all '68 F students, reflects the relatively poor achievement of the '68 non-tutored F's).

*Only Kingsborough Community College data were available for this analysis.

Summary

The '67 total class vs. the '68 total class comparison reveals that long term tutoring appears to have a positive impact on Biology 2 final grades for 3 of the 4 schools upon which this analysis was based; the exception, Queensborough, exhibited so much greater gains for the '67 total class that the findings for the other schools all but dissipated in the For All Schools comparisons. (It is worth noting that this set of analyses suffered from a bias in favor of the '67 class; i.e., due to Kingsborough Community College newly instituted policy of permitting '68 Bio 1 failure to proceed with Bio 2, the '68 class had more poor students entering Bio 2 than the '67 class to which this policy was not applied.

V. Supplemental Study: Comparison of the Biology 1 and Nursing 11 Grade Distributions Between Bronx '68 (Fall) Entrants and a Special Bronx Class that Entered in Fall '69

A number of nursing program students were accepted into Bronx Community College at the mid-year point (i.e., Spring '69 entrants), taking Bio 1 and Nursing 11 during the Spring semester. A comparison of their final Bio 1 and Nursing 11 grades to those attained by the Fall '68 entrants should reflect the impact of providing an entire first semester of tutoring services; i.e., as the tutoring program became fully operationalized for the Fall '68 entrants at the mid-term point, their final grades reflect the value of only very limited tutoring.

Tables IX and X show the final grade distributions of these two groups for Bio 1 and Nursing 11, respectively. (It is worth noting, as indicated in Table IX's note, that while there was no difference in the % of students within each group who received tutoring (Fall '68 - 28%, Spring '69 - 30%), the Spring '69 tutees each received an average of 13.5 hours of tutoring while the Fall '68 tutees each received an average of 5.9 tutoring hours*, thus, the Spring '69 entrants did indeed receive more tutoring during their 1st semester).

Tables IX and X reveal that the Spring '69 entrants clearly exhibit better final grades in both Bio 1 and Nursing 11 than their Fall '68 counterparts. The % Good (A, B) - % Bad (D, F) Bio 1 Final grade ratio is 33:15 for the '69 class compared to 25:26 for '68 class; for Nursing 11, the ratio for the '69 class is 38:14 as compared to 23:21 for the '68 class. Further, the % Bio 1 F's is only 1% for the '69 class as compared to 9% for the '68 class, the % Nursing 11 F's is 4% for the '69 class as compared to 8% for the '68 class.

*Subsequent analyses will be concerned with the correlation between the hours of tutoring received by a student and his subsequent course grades.

Note: Nursing 11 is the course name for the first Nursing course given at Bronx Community College.

Thus, for all three indices (overall grade distribution, good-bad %'s, and failures), these data clearly indicate the value of providing tutoring services for the beginning nursing student from the 1st day of the first semester. They also imply that the results of the preceding set of analyses concerned with 1st semester final grade outcomes would have revealed an even greater impact of tutoring if it was provided throughout the entire first semester; that is, the 1st semester mid-term-to-final grade changes do not reflect the extent to which tutoring provided throughout the 1st semester has a positive impact on grade level achievement.

Further, and more significant, is the fact that in accordance with general community college policy, the 9% (N=19) Fall '68 Bio 1 failures were not permitted to proceed on to Bio 2. The finding that providing a full 1st semester of tutoring services reduced the % of failures to 1% indicates that such a service should enable a significant number of borderline students to proceed satisfactorily with their required Nursing curricula.

While most encouraging, these programmatic implications are based on findings for a Special class, at only one community college. Ergo, it is worth testing its replicability across the board at all five schools. That is, the Fall '69 applicants should be designated as a new experimental group, who would be provided with the tutoring service from the very beginning of their 1st semester; in effect, this group providing the basis for a true appraisal of the tutoring program as intended, not subject to delayed service due to the necessary program development time experienced by the '68 entrants.

VI Summary and Conclusions

Employing two sets of comparisons ('68 tutees vs. '68 non-tutored, & '68 total class vs. '67 total class), each with its pros and cons in providing a close approximation to a bias-free control group, the effects of short-and-long-term tutoring in Biology were studied, employing the criteria of mid-term-to-final grade changes in Biology 1 & final grade changes from Biology 1-to-Biology 2, respectively.

Summarizing the results, it was found that for the '68 tutee vs. '68 non-tutored comparison, short-term tutoring had positive value, especially so for the better students, whereas long term tutoring revealed an even greater positive impact, especially so for the poorer students. For the '67 vs. '68 total class comparison, it was found that short-term tutoring had dubious value, especially for F students, whereas long-term tutoring revealed a positive impact. Thus, without debating which of the comparisons provides a more valid assessment of the value of the tutoring program, taken together they lead to the same conclusion; namely, that while short term tutoring appears to be beneficial to the better student, long term tutoring benefits the poor student as well. Or, in another way, considerably more tutoring is required for the poor student to profit from it grade-wise, as compared to the better student.

Thus, not only do the results indicate the positive value of tutoring, per se, but also that as tutoring is increased in duration its impact will be enhanced. The findings from the supplemental study (comparing the final grades of Bronx '68 Fall Entrants with short-term tutoring to those attained by Spring '69 entrants with a full term of tutoring) supports this conclusion; the latter group (the tutees of whom each received an average of 13.5 tutoring hours during the semester) exhibited much better final grades than the former group (the tutees of whom each received an average of 5.9 semester tuturing hours).

An alternate interpretation of the results of this study, to satisfy the hard(est)-nose critic [who might legitimately state that (a) the findings upon which the aforestated conclusions were based predominantly appeared in the '68 tutee vs. '68 non-tutored comparison, and (b) that students who chose tutoring were more motivated to succeed than their non-tutored grade level counterparts, wherein the results do not support the positive value of tutoring, per se], would be that (at the least) the results indicate that students who choose to be tutored, and receive such services, do better than students who do not choose to receive such services. However, the findings which indicate that the extent, and duration of tutoring apparently covary with the extent to which the tutees exhibit academic achievement, support the conclusion that tutoring per se, does indeed have a positive impact, even if its value is limited to under-achieving students (particularly the F students) who are motivated to achieve success. Even this "limited" conclusion, if confirmed subsequently through more stringent tests of the statistical significance of the findings, warrants the continuous implementation of tutoring services for nursing program students in the community colleges.

What may be perhaps the key finding should be restated at this time; namely, that when Bio 1 failures were permitted to take Bio 2 at Kingsborough, tutoring was seen to enable considerably more of them to complete Bio 2 successfully, as compared to the recovery of the non-tutored F student. This finding warrants the conclusion that the remaining four schools adopt the same policy for F students who choose, and receive the provided tutoring service.

To Summarize Our Tentative Conclusions:

1. Tutoring appears to have a positive impact on the academic achievement of nursing students.
2. The greater the extent and/or duration of tutoring, the greater will its impact be.
3. While long term tutoring will tend to benefit all levels of students, short term tutoring will benefit the better students to a greater degree than the poor ones.

To Summarize the Policy Implications of the Above Conclusions:

1. Provide for nursing program students as extensive tutoring as possible in science courses, and offer the service at the onset of the first semester.
2. Permit students who fail the first semester of a science (sequence) course and desire to undertake tutoring, to take the second semester of the sequence concurrent with tutoring in the subject matter.

TABLE I

'68 TUTEES vs. '68 NON-TUTORED: CHANGES IN BIO I's MID-TERM TO FINAL GRADE DISTRIBUTIONS

		KINGSBOROUGH				MANHATTAN				BRONX				STATEN ISLAND				QUEENSBOROUGH				TOTAL			
		Mid-Term		Final		Mid-Term		Final		Mid-Term		Final		Mid-Term		Final		Mid-Term		Final		Mid-Term		Final	
		(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%
TUTEES	A	(0)	0	(1)	2	(0)	0	(0)	0	(0)	0	(1)	2	(1)	4	(1)	4	(0)	0	(1)	3	(1)	1	(4)	2
	B	(4)	7	(6)	11	(0)	0	(1)	7	(6)	11	(7)	13	(1)	4	(1)	4	(2)	6	(1)	3	(13)	7	(16)	9
	C	(11)	20	(14)	26	(2)	14	(4)	29	(13)	24	(25)	46	(8)	29	(9)	31	(1)	3	(10)	29	(35)	19	(62)	33
	D	(10)	19	(17)	31	(2)	14	(3)	21	(19)	35	(12)	22	(8)	29	(8)	29	(16)	46	(14)	40	(55)	30	(54)	29
	F	(29)	54	(16)	30	(10)	71	(5)	36	(16)	29	(7)	13	(9)	31	(8)	29	(15)	43	(8)	23	(79)	42	(44)	23
	0*							(1)	7	(1)	2	(3)	5	(1)	4	(1)	4	(1)	3	(1)	3	(3)	2	(6)	3
		(54)	100	(54)	100	(14)	99**	(14)	100	(55)	101	(55)	101	(28)	101	(28)	101	(35)	101	(35)	101	(186)	101	(186)	99
NON TUTORED	A	(0)	0	(5)	14	(2)	3	(11)	15	(2)	1	(2)	1	(8)	10	(6)	7	(11)	11	(5)	4	(23)	5	(29)	7
	B	(6)	17	(6)	17	(6)	8	(10)	14	(30)	20	(40)	26	(21)	25	(10)	12	(27)	22	(26)	22	(90)	20	(92)	20
	C	(7)	19	(7)	19	(15)	21	(14)	20	(64)	42	(66)	44	(31)	37	(30)	36	(30)	25	(38)	32	(147)	31	(155)	33
	D	(5)	14	(7)	19	(16)	22	(15)	21	(29)	19	(23)	15	(13)	16	(18)	22	(25)	21	(32)	27	(88)	19	(95)	20
	F	(14)	39	(5)	14	(32)	45	(16)	22	(23)	15	(12)	8	(5)	6	(8)	10	(18)	15	(10)	8	(92)	20	(51)	11
	0*	(4)	11	(6)	17			(5)	7	(3)	2	(8)	5	(5)	6	(11)	13	(9)	7	(9)	7	(21)	4	(39)	8
		(36)	100	(36)	100	(71)	99	(71)	99	(151)	99	(151)	99	(83)	100	(83)	100	(120)	101	(120)	100	(461	99	(461)	99

Note: *0 refers to course outcomes such as withdrew, incomplete, etc. which cannot be classified as "good or bad" as the reasons for such vary considerably

**%'s were rounded off to the nearest .10; thus the total %'s range from 99-101.

TABLE I A*

'68 TUTEES vs. '68 NON TUTORED: COMPARISON OF THE GRADE DISTRIBUTION CHANGES FROM BIO I's MID-TERM TO FINAL GRADE LEVELS

		KINGSBOROUGH		MANHATTAN		BRONX		STATEN ISLAND		QUEENSBOROUGH		TOTAL	
		Mid Term %	Final %	Mid Term %	Final %	Mid Term %	Final %	Mid Term %	Final	Mid Term %	Final	Mid Term %	Final
TUTEES	A & B**	7	13	0	7	11	15	8	8	6	6	8	11
	D & F	73	61	85	57	64	35	60	58	89	63	72	52
NON-TUTORED	A & B	17	31	11	29	21	27	35	19	23	26	25	27
	D & F	53	33	67	43	34	23	22	32	36	35	39	31

*This table is a condensation of Table I

**The entries represent the % of students who received good (A & B) or poor (D & F) mid-term and final grades.

TABLE II

'68 TUTEES vs. '68 NON-TUTORED: AVERAGE FINAL GRADE POINT CHANGES* OF STUDENTS AT DIFFERENT BIO I MID-TERM GRADE LEVELS.

	KINGSBOROUGH		MANHATTAN		BRONX		STATEN ISLAND		QUUENSBOROUGH		TOTAL	
	Tut.	Non-Tut.	Tut.	Non-Tut.	Tut.	Non-Tut.	Tut.	Non-Tut.	Tut.	Non-Tut.	Tut.	Non-Tut
	Avg.Gain (N)	Avg. Gain (N)	Avg.Gain (N)	Avg.Gain (N)	Avg.Gain (N)	Avg.Gain (N)	Avg.Gain (N)	Avg.Gain (N)	Avg.Gain (N)	Avg.Gain (N)	Avg.G. (N)	Avg.Gain (N)
A	- (0)	- (0)	- (0)	.00 (2)	- (0)	-1.0 (2)	-1.00 (1)	-.75 (8)	- (0)	-.63 (11)	-1.00 (1)	-.65 (23)
B	.25 (4)	.66 (6)	- (0)	1.00 (6)	-.16 (6)	-.07 (30)	1.00 (1)	-.65 (20)	.50 (2)	-.33 (27)	.16 (13)	-.16 (89)
C	.10 (11)	.71 (7)	.50 (2)	.57 (14)	.25 (12)	.06 (63)	-.37 (8)	-.48 (27)	.00 (1)	-.23 (30)	.07 (34)	-.02 (141)
D	.20 (10)	1.25 (4)	.50 (2)	.86 (15)	.68 (18)	.43 (28)	.12 (8)	.33 (15)	.37 (16)	.36 (25)	.38 (54)	.50 (87)
F	.65 (29)	.69 (13)	.66 (9)	.71 (27)	1.00 (14)	.82 (21	.25 (8)	.00 (4)	.66 (15)	.55 (18)	.68 (75)	.66 (83)
0**	- (0)	- (2)	- (1)	- (6)	- (2)	- (3)	- (2)	- (5)	- (0)	- (0)	- (5)	- (16)

*Table entries are the average grade point gains, from mid-term to final, corresponding to student's mid-term grades. Gains of a single grade point (e.g., B to A) were scored + 1, a gain of two grade points was scored + 2, etc. A drop in one grade point (e.g., B to C) was scored - 1, a drop in two grade points was scored -2, etc. Thus the table reflects the average grade point change of all students whose mid-term grades were at each of the levels indicated. (i.e., A → F)

**0 refers to course outcomes such as incomplete, withdrawal, etc., which cannot be meaningfully converted into a grade.

TABLE III

KINGSBOROUGH '68 TUTEES vs. '68 NON-TUTORED*: CHANGES IN FINAL GRADE POINT DISTRIBUTIONS FROM BIO I TO BIO 2

		BIO 1			BIO 2		
		N	%		N	%	
'68 TUTEES	A	(0)	0	6	(4)	9	28
	B	(3)	6		(9)	19	
	C	(14)	30		(11)	23	
	D	(18)	38	64	(9)	19	36
	F	(12)	26		(8)	17	
	0	-	-		(6)	13	
		(47)	100		(47)	100	
'68 NON-TUTORED	A	(6)	14	35	(6)	17	34
	B	(9)	21		(6)	17	
	C	(7)	16		(5)	14	
	D	(6)	14	30	(5)	14	28
	F	(7)	16		(5)	14	
	0	(8)	19		(8)	23	
		(43)	100		(35)	99	

*At the time of this report, only the Kingsborough data were available.

TABLE IV

KINGSBOROUGH* '68 TUTEES vs. '68 NON-TUTEES: AVERAGE GRADE POINT CHANGES FROM BIO 1 TO BIO 2 FOR STUDENTS AT DIFFERENT BIO 1 GRADE LEVELS.

Bio 1	TUTEES		NON-TUTORED	
Grades	Avg. Gain	(N)	Avg. Gain	(N)
A	-	(0)	-.33	(6)
B	.66	(3)	-.50	(8)
C	.57	(14)	-.33	(6)
D	.40	(15)	.33	(3)
F	.77	(9)	.25	(4)
0	-	(6)	-	(8)

*At the time of this report, only Kingsborough data was available for this analysis.

TABLE V

'67 TOTAL CLASS vs. '68 TOTAL CLASS: CHANGES IN BIO 1's MID TERM TO FINAL GRADE DISTRIBUTIONS

		KINGSBOROUGH				MANHATTAN				BRONX				STATEN ISLAND				QUEENSBOROUGH				TOTAL			
		Mid-Term		Final		Mid-Term		Final		Mid-Term		Final		Mid-Term		Final		Mid-Term		Final		Mid-Term		Final	
		(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%
'67	A	(4)	3	(2)	2	DATA NOT AVAILABLE*				(4)	2	(11)	6	(5)	6	(1)	1	(5)	3	(6)	4	(18)	3	(20)	4
	B	(14)	13	(18)	16					(34)	17	(55)	28	(6)	7	(14)	16	(21)	13	(39)	24	(75)	14	(126)	23
	C	(30)	26	(35)	30					(56)	28	(67)	34	(40)	47	(34)	40	(60)	37	(63)	39	(186)	33	(199)	35
	D	(27)	23	(25)	22					(59)	30	(41)	21	(29)	34	(23)	27	(28)	17	(36)	22	(143)	26	(125)	23
	F	(34)	30	(29)	25					(43)	22	(16)	8	(2)	2	(13)	15	(47)	29	(12)	7	(126)	23	(70)	13
	0	(5)	4	(5)	4					(2)	1	(8)	4	(4)	5	(1)	1	(0)	0	(5)	3	(11)	2	(19)	3
		(114)	99	(114)	99					(198)	100	(198)	101	(86)	101	(86)	100	(161)	99	(161)	99	(559)	101	(559)	101
'68	A	(0)	0	(6)	7	(2)	2	(11)	13	(2)	1	(3)	1	(9)	8	(7)	6	(11)	7	(6)	4	(22)	4	(22)	4
	B	(10)	11	(12)	13	(6)	7	(11)	13	(36)	17	(47)	23	(22)	20	(11)	10	(29)	19	(26)	17	(97)	17	(96)	17
	C	(18)	20	(21)	23	(17)	20	(18)	21	(77)	37	(91)	44	(39)	35	(39)	35	(31)	20	(49)	31	(165)	30	(200)	36
	D	(15)	17	(24)	26	(18)	22	(18)	21	(48)	23	(35)	17	(21)	19	(26)	23	(41)	27	(46)	30	(125)	23	(131)	24
	F	(43)	47	(21)	23	(42)	50	(21)	25	(39)	19	(19)	9	(14)	13	(16)	14	(33)	21	(18)	12	(129)	23	(74)	13
	0	(4)	4	(6)	7	(0)	0	(6)	8	(4)	2	(11)	5	(6)	5	(12)	11	(10)	7	(10)	7	(24)	4	(39)	7
		(90)	99	(90)	99	(85)	101	(85)	101	(206)	99	(206)	99	(111)	100	(111)	99	(155)	101	(155)	101	(562)	101	(562)	101

*Due to the unavailability of the data for Manhattan's '67 class, the '67 and '68 totals exclude Manhattan.

TABLE V A*

'67 TOTAL CLASS vs. '68 TOTAL CLASS: COMPARISON OF THE GRADE DISTRIBUTION CHANGES FROM BIO 1's MID-TERM TO FINAL GRADE LEVELS

		KINGSBOROUGH		MANHATTAN		BRONX		STATEN ISLAND		QUEENSBOROUGH		TOTAL	
		Mid-term%	Final %	Mid-term%	Final %	Mid-term%	Final %	Mid-term%	Final %	Mid-term%	Final %	Mid-term%	Final %
67	A & B	16	18			19	34	13	17	16	28	17	27
	D & F	53	47			52	29	36	42	46	29	49	36
68	A & B	11	20	9	26	18	24	28	16	26	21	21	21
	D & F	64	49	72	46	42	26	32	37	48	42	46	37

*This table is a condensation of Table V.

**The entries represent the % of students who received good (A or B) or poor (D or F) mid-term and final grades.

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TABLE VI

'67 TOTAL CLASS vs. '68 TOTAL CLASS: AVERAGE FINAL GRADE POINT CHANGES* OF STUDENTS AT DIFFERENT BIO 1 MID-TERM GRADE LEVELS

Mid-Term Grade ↓	KINGSBOROUGH		MANHATTAN**		BRONX		STATEN ISLAND		QUEENSBOROUGH		TOTAL	
	67	68	67	68	67	68	67	68	67	68	67	68
	Avg.Gain (N)	Avg.Gain (N)	Avg.Gain (N)	Avg.Gain (N)	Avg.Gain (N)	Avg.Gain (N)	Avg.Gain (N)	Avg.Gain (N)	Avg.Gain (N)	Avg.Gain (N)	Avg.Gain (N)	Avg. Gain (N)
A	-1.50 (4)	- (0)	DATA NOT AVAIL-ABLE	.00 (2)	.00 (4)	-1.00 (2)	.00 (1)	-.77 (9)	-.60 (5)	-.63 (11)	-.64 (14)	-.72 (22)
B	-.78 (14)	.5 (10)		1.00 (6)	.00 (32)	-.08 (36)	-.07 (14)	-.33 (21)	.15 (20)	-.28 (29)	-.11 (80)	-.17 (96)
C	-.07 (30)	.33 (18)		.56 (16)	.47 (58)	.09 (76)	-.37 (32)	-.38 (35)	.25 (60)	-.22 (31	.16(180)	-.04 (160)
D	.29 (27)	.50 (14)		.82 (17)	.70 (58)	.55 (47)	.39 (23)	.33 (23	.70 (27)	.34 (41)	.57(135)	.43 (125
F	.67 (34)	.66 (42)		.70 (36)	.90 (42)	.86 (37)	1.33 (12)	.58 (12)	.95 (44)	.60 (33)	.89(132)	.67 (124)
0	- (0)	- (2)		- (7)	- (6)	- (7)	- (3)	- (7)	- (5)	- (0)	- (14)	- (16)

*See note on Table II
**As '67 Manhattan data not available, '67 and '68 totals exclude Manhattan.

TABLE VII

'67 TOTAL CLASS vs. '68 TOTAL CLASS: CHANGES IN FINAL GRADE POINT DISTRIBUTIONS FROM BIO 1 TO BIO 2

		KINGSBOROUGH				MANHATTAN***				BRONX				STATEN ISLAND				QUEENSBOROUGH				TOTAL			
		Bio 1		Bio 2		First Semester		Second Semester		Bio 1		Bio 2		Bio 1		Bio 2		Bio 1		Bio 2		Bio 1		Bio 2	
		(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%
'67 CLASS	A	(2)	2	(3)	3	(5)	11	(2)	7	(11)	6	(8)	5					(6)	4	(5)	4	(19)	4	(16)	4
	B	(18)	16	(24)	24	(7)	15	(1)	4	(55)	28	(43)	29					(39)	24	(38)	30	(112)	24	(105)	28
	C	(35)	31	(26)	26	(12)	27	(10)	36	(67)	33	(51)	34	DATA				(63)	39	(52)	41	(165)	35	(129)	35
	D	(25)	22	(29)	29	(11)	24	(11)	39	(41)	21	(39)	26	NOT				(36)	22	(25)	20	(105)	22	(93)	25
	F	(26)	23	(11)	11	(5)	11	(4)	14	(16)	9	(4)	3					(7)	5	(2)	2	(49)	10	(17)	5
	0*	(8)	7	(6)	6	(5)	11	(0)	0	(8)	4	(4)	3					(10)	6	(4)	3	(26)	5	(14)	4
		114	101	99	99	45	99	28	100	198	101	148	100					161	100	126	100	476	100	374	101
'68 CLASS	A	(6)	7	(10)	13	(11)	13	(21)	42	(3)	2	(6)	4					(6)	4	(3)	3	(15)	3	(19)	5
	B	(12)	13	(15)	20	(10)	12	(11)	22	(47)	23	(60)	36	AVAILABLE				(26)	17	(7)	6	(85)	19	(82)	23
	C	(21)	23	(16)	22	(18)	21	(14)	28	(91)	44	(62)	38					(49)	32	(19)	16	(161)	35	(97)	27
	D	(24)	27	(14)	19	(18)	21	(1)	2	(35)	17	(30)	18					(46)	29	(54)	45	(105)	23	(98)	27
	F	(19)	21	(13)	17	(20)	24	(2)	4	(19)	9	(2)	1					(15)	9	(24)	20	(53)	12	(39)	11
	0	(8)	9	(6)	8	(7)	8	(1)	2	(11)	5	(4)	3					(13)	8	(12	10	(32)	7	(22)	6
		90	100	75	99	84	99	50	100	206	100	164	100					155	99	119	100	451	99	357	99

*0 refers to unclassifiable outcomes

**%'s were rounded off to nearest .10

***The Bio 1-Bio 2 change in Manhattan will be excluded from the Totals of all schools, as General Bio was given in the first semester and Anatomy and Physiology in the second semester to '67 students, with the reverse for '68 students. The net effect is that as A & P is a more difficult course, this in itself should make for a poorer distribution change for the '67 students from first to second semester.

TABLE VII A*

Nurse Tutoring Study: Grant No. 326.01

'67 TOTAL CLASS vs. '68 TOTAL CLASS: COMPARISON** OF THE GRADE
DISTRIBUTION CHANGES FROM BIO 1 TO BIO 2

		KINGSBOROUGH		MANHATTAN***		BRONX		STATEN ISLAND		QUEENSBOROUGH		TOTAL	
		Bio 1%	Bio 2%	Bio 1%	Bio 2%	Bio 1%	Bio2%	Bio 1%	Bio 2%	Bio 1%	Bio 2 %	Bio 1%	Bio 2%
'67	A & B	18	27	26	11	34	34	DATA NOT		28	34	28	32
	D & F	45	40	35	53	30	29			27	22	32	30
'68	A & B	20	33	25	64	25	40	AVAILABLE		21	9	22	28
	D & F	48	36	45	6	26	19			38	65	35	38

*This table is a condensation of Table VII.

**The entries represent the % of students who received good (A or B) or poor (D or F) Bio 1 and Bio 2 final grades.

***Manhattan data not included in totals for reasons stated in footnote to Table VII.

TABLE VIII

KINGSBOROUGH* '67 CLASS vs. '68 CLASS: AVERAGE GRADE POINT CHANGES FROM BIO 1 TO BIO 2 FOR STUDENTS AT DIFFERENT BIO 1 GRADE LEVELS

BIO 1 GRADES ↓	'67 CLASS		'68 CLASS	
	Avg. Gain	(N)	Avg. Gain	(N)
A	-1.00	(2)	-.33	(6)
B	-.12	(16)	-.18	(11)
C	.12	(32)	.25	(20)
D	.27	(22)	.43	(18)
F	.75	(20)	.61	(13)
0	-	(14)	-	(14)

*At the time of this report, only Kingsborough data was available for this analysis.

TABLE IX

Nurse Tutoring Study: Grant No. 326-01

COMPARISON OF THE BIO 1 GRADE DISTRIBUTIONS BETWEEN BRONX '68 (FALL) ENTRANTS AND BRONX '69 (SPRING) ENTRANTS

Bio 1	Fall '68 ENTRANTS			SPRING '69 ENTRANTS		
GRADES	(N)	%		(N)	%	
A	(3)	2	25	(12)	11	33
B	(47)	23		(24)	22	
C	(91)	44		(50)	45	
D	(35)	17	26	(15)	14	15
F	(19)	9		(1)	1	
0	(11)	5		(8)	7	
	206	100		110	100	

Note: 59 of the 206 Fall '68 Entrants received a total of 343 hours of tutoring, compared to 33 of the 110 Spring '69 Entrants who received a total of 443 hours

TABLE X

COMPARISON OF THE NURSING 11 GRADE DISTRIBUTION BETWEEN BRONX '68 (FALL) ENTRANTS AND BRONX '69 (SPRING) ENTRANTS

		Fall '68 Entrants			Spring '69 Entrants		
		N	%		N	%	
NURSING GRADES	A	3	2	23	4	2	38
	B	41	21		60	36	
	C	109	54		59	35	
	D	26	13	21	17	10	14
	F	16	8		7	4	
	0	8	4		20	12	
		199	102		167	99	

CHAPTER IV

FINDINGS AND RECOMMENDATIONS BASED ON PROFESSIONAL JUDGMENTS

While the previous chapter concerned itself with an empirical assessment of the value of the tutoring program based on hard data, this chapter discusses our findings and recommendations from a professional point of view, i.e., findings based on professional observations of the project director and her coordinating staff who have worked intimately with every aspect of the program. Although what follows is not based on "systematic" data, it is our conviction that the following perceptions indeed have considerable bases, i.e., "experiential validity."

A. Should Tutoring Emphasis Be on Skills or Content?

It is now fairly widely accepted that a major reason why disadvantaged students have difficulty in college is that they don't have good study skills. While this is true, too frequently its implication with regard to program is that it is more beneficial in the long run to give such students a kind of comprehensive training in skills, rather than supplementary instructions in course content. Our experience indicates that while training in study skills is extremely helpful, it cannot by itself enable students to pass courses which are very difficult.

One of the skills most often cited is note-taking. What we suspect is that note-taking is not an independent skill but a function of understanding. In looking through hundreds of pages of students' notes, we found that their quality varied with 1) the clarity of the instruction, 2) the difficulty of the subject, and 3) the academic competence of the student. With certain instructors students of all abilities had better notes than with other instructors (who were teaching the same subject). To a much lesser extent, notes were uniformly better in some subjects (e.g., nursing) than in others. To an even lesser extent, good students took better notes than poor students, regardless of the instructor or the subject.

Since the instructors and the subjects are "givens," the only thing that we can productively concern ourselves with is the students. Students take good (useful) notes not because they have been well trained in note-taking but because they understand what the lecturer is saying. If the lecturer is poor or if the subject is difficult, only those who are exceedingly intelligent or who have background in the subject can reconstitute what has been said. This becomes "good note-taking."

In our tutoring program we spent much less time on study skills than on actual content. Nevertheless, note-taking improved. It came as a surprise to many students that as their understanding of the material increased, and as they brought that understanding from the tutoring session to bear on new material being presented in the classroom, they were able to take better notes from their instructors.

B. Tutoring Hours and Groups

The number of tutoring hours students need varies with their ability and the difficulty of the course. Tutoring C or D students means answering questions, filling in gaps and helping establish study priorities. Tutoring F students (for at least the first half of the semester) means teaching material from the ground up.

Two factors make biology the most difficult subject. First, is the great amount of complex material to be mastered (both memorized and understood). Second is the vocabulary, which must be used long before it is really understood. Nursing and psychology seem to be less difficult although there were some requests for tutoring in both subjects. (English and nursing math--except for Manhattan Community College where a regular math course is given--seem to be requested on a more individual basis).

An F student should probably have no fewer than three hours a week in biology and up to two hours a week in the other subjects. C and D students can probably make do with two hours in biology and about one and one half in each of the other subjects. If manpower is short, C's and D's can be tutored in very small groups, about 4 to a tutor. (In fact they welcome group-tutoring before tests because it provides a richer basis for review). With F students, however, the group should be no larger than two.

Students of widely disparate ability should not be teamed up because it is very difficult for a tutor to handle both "levels" of instruction at once. Since the two students do not possess a "common bond," the group loses a common motivation. Neither student gets adequate help; both sense the tutor's discouragement and lose confidence.

It is important that a fair percentage of B and C students be tutored as well because it provides a leavening for the tutors. Such students participate actively, "catch on" easily, and show improvement fast. A tutor who has a few such students experiences success, and more willingly takes on the difficult student. It is also good for the poor students to see that some B's and C's get tutoring because it reduces their sense of isolation and inferiority.

C. F's and Potential F's

What at first glance appears to be an undifferentiated mass of F students is really a group with great diversity. For the purposes of this discussion, potential F's may be categorized as follows: (1) inadequate educational background attributable to poor instruction, low motivation or a combination of both; (2) extrinsic difficulties not related to the student's ability or preparation, e.g. having children, having to work, or being out of school a long time (which often creates confidence problems rather than learning ones); (3) personal fragility, characterized by shyness, and its attendant literalness, making difficult certain ordinary college "activities" such as asking questions in lab, fighting for disputed points on exams, requesting extra time for papers, etc.; and want of ego strength, so that any failing mark is at once a sign of stupidity, and also entirely irrevocable; (4) unwillingness to put in the kind of time required by college work; and (5) lack of minimal native ability.

These "types" except for (5) appear in all ability levels in differing proportions. Since our primary concern is with potential failures, it is important to assess how, and in what degree tutoring helps them.

Tutoring is most effective with students of type (2). The reason is obvious: motivation is high, and because their difficulties vis-à-vis college are "visible," there is little emotional energy wasted. They are characteristically more in touch with themselves than are typical responsibility-free college students (of all abilities), and can bring more of their resources to bear on school work. (See Appendix II, page 17, ㊲.

An investment in this group usually pays off. (At Kingsborough, we had 100% success with students of this kind; every one who failed last semester or was in trouble this semester finally passed. The results from the other community colleges are almost as good). In practical terms this means that where tutorial manpower is limited, the coordinator can "cut corners" with this group. She can start them later, put them into larger groups or assign her less experienced tutors to them. Such students are usually so eager and grateful for help that they often support a weak tutor while learning from him.

Tutoring was found to be quite successful with students of type (1). Because they comprise the largest number of F's, the potential return on these students is very great; but they are the most heterogeneous, hence the most difficult to work with. The coordinator, therefore, must provide the best service for this group: the most able and experienced tutors as well as a great deal of personal attention in the form of information, praise, scolding, etc. (See Appendix II page 1, (51) and (91).)

We estimate that we stand a 50-50 chance to help students of type (3). They generally do not sign up for tutoring early in the semester, unless the major outreach is done by the nursing instructors or coordinator at a big session where applications are provided and everyone signs up together. Otherwise they tend to come in late in the term, and then, only when they are encouraged. Their attendance is excellent, but because they carry their shyness and fear right into the tutoring session they get less out of it than most other students. They will answer a question if called on, but not ask one. They would not dream of stopping a tutor if he were going too fast or were covering material they weren't responsible for. (See Appendix II, page 10, ㉒.) The coordinator should try to team a student of this kind with one who is more outgoing, but not domineering, so that she gets the benefit of the other's questions, answers, and classroom feedback. The tutor selected for such a student must be extremely sensitive, must remember to ask her questions, and must insist that she participate in what we have found to be the single most successful tutoring technique: the student's explaining the material back to the tutor.

We had limited success with students of type (4). They register for tutoring, but their attendance is sporadic: they tend to appear before tests. (See Appendix II, page 4 ⑳. Because theirs is not a problem of insufficient ego or poor background, the quality of their tutoring is not as critical as that for the previous two groups. However, most of these girls are capable, and a few who are still at the borderline of commitment will respond to a strong adult. Unfortunately, because they are not terribly responsible and because their indifference to school is so apparent, the coordinator often becomes impatient with them and finds it difficult to spend very much time with them.

As expected, we were least successful with students of the last type. At Kingsborough Community College during the second semester they had four hours a week with our best tutors and still could not pass. Perhaps ten hours a week with very gifted teachers might do it, but it is not practical when we can use our manpower to better advantage. It must be stressed, however, that this is a very small group. (At Kingsborough, only 3 out of the 14 who failed the second semester - there were 21 in danger - failed because they were truly incapable.) Although it is impractical to expend manpower on no-ability students, it is difficult to identify them at first. Because they often display the same characteristics, an apparent no-ability student is sometimes a shy, fearful one who really might make it. The coordinator, with no way of knowing, must assume that any such student is of the latter type and apply the appropriate technique. If after four weeks there is no perceptible improvement (either in grade or in evaluation by tutor) she can assume that the student "doesn't have it." In that case, she can introduce a third student into the group in order to take best advantage of the tutor's skill.

D. Additional Observations about F Students

Most often, the students who register for tutoring first are the older and the anxious--in all ability levels. Not all F's register. Although there are a few who really do not care, many do not register because they are afraid--not of tutoring in particular--but of everything. It is a kind of fear that breeds passivity and literalness and which appears to be lack of responsibility or concern.

Three examples from Kingsborough Community College will illustrate this. 1) In the spring semester we did not have a major outreach session as we did in the fall because the program was so well known that it did not seem necessary. We let it be known to the nursing faculty and to our active former students that everyone had to register by a particular date. The nursing people were persistent, and by the announced date most of our fall students and quite a number of new ones had come in. But, there were a few, very needful students, who didn't. When we finally spoke to them, two said they had expected to be "sent for" as they had been last year, and three said that they were waiting to see if they could pass without tutoring. To underline the fact that these students were neither indifferent nor lazy, once we assigned them tutors they remained in the program through the entire semester. 2) The tutors encourage their students to phone them before a test if they have any last minute questions. C students do; F students, except for the older ones, do not. 3) The last example is typical and very much to the point. A psychology tutor, convinced that one of her students was going to fail an impending test, suggested that they meet at Brooklyn College for an extra session over the weekend. The student did not show up and did not call. When the tutor called her, she said that the instructor had decided to test them on fewer chapters so that she didn't need the extra tutoring. The tutor was (rightfully) furious, and fully convinced that the student was not interested in school work. Much later we discovered the real explanation. The student, a very nice girl, had not intended to come to the appointment from the beginning. She was unable to refuse the tutor's generous and insistent offer face-to-face, and by the time Sunday came, she was too embarrassed to call her.

E. Enrolling in Nursing 2 Being Contingent Upon Passing Biology 1: The Validity of This Assumption; The Effect of This Policy on Retention

What happens to students who fail the first biology course? In all the colleges except Kingsborough, they are not permitted to take their second nursing course. (The validity of the assumption underlying this policy will be discussed later.) However, there is no question but that the policy has very adverse effects on retention. A student who fails the first biology course and cannot continue with her nursing until she passes the biology suffers a double "penalty." She is no longer a part of the group with whom she entered the program, except in English or psych, and she is without the interest that brought her to college in the first place--nursing. Separated from her class, lacking her major interest, and a weak student withal, she usually does not make it beyond the first year.

We will not know until February 1970 what proportion of the students who fail the first biology course (suffering the double penalty of falling out of the nursing sequence and out of their group) do finally graduate. But we do now have data* from Kingsborough which show the effect of just one penalty - in this case a correct one: not being able to advance to the second nursing course because of failure in the first. To re-cap, students who fail the first biology course are permitted to continue with their nursing sequence (i.e. take Nursing 2**) and are also permitted to take the second biology course. Students who fail their first nursing course, however, are not permitted to continue with the nursing sequence. How do these two groups do in their second biology course? In the first group (students who failed Biology 1 and took Nursing 2 and Biology 2) 19 out of 34 (56%) passed Biology 2. In the second group (students who failed Nursing 1 and took Biology 2 but not Nursing 2), not one of 5 passed Biology 2 although only 1 had failed Biology 1! One wonders how many of the 19 in the first group would have passed Biology 2 had they been deprived of their nursing.

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* This includes all the 1967 and 1968 entrants.

** For simplicity we will designate the first course in a sequence 1 and the second 2.

There is justification for holding Biology 1 failures back from Nursing 2 only if the Biology 1 content is really necessary (a prerequisite) for the second nursing course. If that were so, one would expect that most students who fail Biology 1 and go right on to Nursing 2 would do poorly. Such is not the case if Kingsborough's data are any indication. There, of the 32 students who failed Biology 1 and proceeded to Nursing 2, 22 (69%) passed.

The real reason for the existing policy, one suspects, is that Biology 1 is perceived as a good way to screen out students who won't make it through the nursing program. This is borne out, of course, because it's a self-fulfilling prophecy: when students who fail Biology 1 are not permitted to continue in the nursing sequence, they do usually drop out for the reasons posited.

But then why bother admitting students with inadequate backgrounds if they are going to be dropped as soon as they have shown how inadequate their backgrounds are.

The overall recommendation we would make is that, in addition to providing supplementary instruction, the college should endeavor to hold its nursing students by permitting them, as long as they pass, to remain with their class in the nursing sequence. This means letting some continue as day students despite a low index. The way should be held open for failed courses to be made up at night, during summers, etc. because once a student has completed her first year, the impetus to finish is very great.

It must be emphasized we are not suggesting that course work standards should be lowered, either in nursing, biology or any other subjects. The point is not to make college easier, but to make it easier for students to complete college.

SUMMARY AND CONCLUSIONS

Results to Date

On the basis of both empirical and professional assessment, the following were found:

1. Tutoring appears to have a positive impact on the academic achievement of nursing students.

2. The greater the extent and/or duration of tutoring, the greater its impact will be.

3. While long term tutoring will tend to benefit all ability levels of students, short term tutoring will benefit the better students to a greater degree than the poor ones.

4. The policy of not permitting students to proceed to their second nursing course until they have passed the first biology course has very adverse effects on retention.

5. Science is by far the most difficult subject nursing students take, and under the present contingency policy, the first biology course is the most important course they take.

6. The extent to which students avail themselves of tutoring is a function of (1) the difficulty of the course (2) their age (3) their anxiety (4) their ability and (5) their emotional investment in becoming nurses. With the exception of the first, none of these factors figures significantly where there is a strong tutoring program.

7. The number of hours of tutoring students need varies with the difficulty of the course and their ability. The average for biology is from 15-20 hours a semester.

8. The source of tutors is less important than the training and supervision they get (from the coordinator). The training must stress excellence in instruction.

9. Implementation of a tutoring program requires sustained work on the part of a professional person. The best coordinator seems to be female with secondary school teaching experience.

10. Tutoring not only improves grades, but it increases ego strength because it enables students to master material that they respect.

Policy Implications

1. Provide extensive tutoring in science courses from the very beginning (2nd week) of the first semester.

2. Employ a coordinator for at least twenty hours a week, preferably someone with secondary school teaching experience.

3. Permit students who fail the 1st semester of a two-course bio sequence to take the second bio course concurrent with extensive tutoring in the subject. Moreover, permission to enroll in the 2nd semester of nursing should not be contingent on 1st semester performance in other courses (e.g. Bio 1).

4. Add a recitation section in bio courses with about ten students per section. If cost does not permit the use of regular faculty, a four-year college senior (bio-med) can do it.

CHAPTER V

PLANS FOR 1969 - 70

A. Request to Replicate Tutoring Services with a New Experimental Class (Fall, 1969 Entrants)

The preceding discussions all point strongly toward replicating the tutoring service for Fall '69 entrants, i.e. a new experimental group. Because, as elaborated, the tutoring service was not actually provided until the middle of the 1st semester, extremely limited tutoring was provided during that term with regard to both duration and tutoring hours. Thus, the present and future findings regarding the value of tutoring for '68 entrants reflect only the impact of meager tutoring, started late in the first semester, the critical one in terms of subsequent retention.

Further, the fact that 4 of the 5 schools do not permit 1st semester failures (in beginning courses) to proceed to the second semester (in respective advanced courses) limits the potential retention of underachievers to rest exclusively on the meager (mid-term-to-final) tutoring received during the 1st semester. The data from the Bronx '68 vs. '69 entering classes (i.e. that the '69 entrants receiving considerably more 1st semester tutoring as the program was in full gear by the time they entered, exhibited not only higher overall final grades but considerably fewer failures) strongly suggests that the provision of adequate tutoring services from the very beginning of the first semester on is extremely important.

Thus, in order to evaluate the effect of tutoring services, as originally proposed (i.e., a full first semester), on retention a new (or true) experimental group is required. We therefore propose that we be permitted to replicate the study with the '69 entrants, expecting that their grade level achievement and retention outcomes will be sufficiently more positive than those exhibited by our present "experimental" group (the '68 entrants).

In short, in order to truly appraise the extent to which a tutoring service such as ours is effective, when provided as it should be, the data for such an appraisal must stem from subjects who did indeed receive the true service, provided as it should be.

B. Costs and Budgets

The monies requested reflect our desire to provide service for the 1968 class, as planned, and for the fall 1969 entrants in addition.

In accordance with the desirability of utilizing the new fall'69 entrants as the true experimental group as just discussed to provide a valid test of the value of the tutoring program as intended, a budget consideration must naturally have considerable bearing on the true feasibility of this plan.

Briefly reviewing the projected budget for the first two years of this study (September '68 - August '70), as proposed and approved. $118,701* was authorized for the present year 1968-69 and $84,892 was authorized for the next year ('69-'70). The total authorized for the two years being $203,593.

Due to the effective cost-efficiency measures employed during the present year, (realizing the need for a new experimental group Fall '69) the total monies utilized will be only $61,360 (of the $118,701) leaving a balance of $57,340. Accommodating the new experimental group with the required full year of tutoring service, as well as providing the service to the Fall '68 entrants during the second year, will require $130,046, rather than the original projection of $84,892 earmarked to serve only the latter group; the net increase in second year costs being less than the balance from the first year.

In short, the original two year projection, for one experimental group totals $203,593, while the projected two year cost to serve both experimental groups will total $191,406; i.e. still a net saving of about $12,000 from that originally authorized.

APPROVED		TOTAL MONIES		
1968 Freshman	$118,701 ←	Current Budget Period (68-69) →	$61,360	Actual Expenditure (for Freshmen)
½ Sophmores	84,892 ←	Next Budget Period (69-70) →	130,046	Requested for ½
TOTAL	$203,593		TOTAL $191,406	Soph. & New Class
		DIFFERENCE: $12,187		

* All figures include indirect cost allowance.

PROJECTED TUTORING COSTS

ORIGINAL EXPERIMENTAL CLASS: SECOND YEAR (1969-70)

	Est.* Students	Est. Tutors	Hrs/wk	Total Tutor Hrs/wk	Total Tutor Hrs/sem. (15wks)	Cost/sem.	Cost/year
Kings.	30	15	4	60	900	$2,700	$5,400
Man.	20	10	4	40	600	1,800	3,600
Bronx	40	20	4	80	1,200	3,600	7,200
Queens	20	10	2	20	300	900	1,800
S.I.	10	5	2	10	150	450	900
Total	120	60		210	3,150	9,450	$18,900

*Number of students who will need tutoring is the product of the percentage who were tutored during the spring and the number who are likely to be back next fall.

NEW EXPERIMENTAL CLASS: FIRST YEAR (1969-70)

	Est. Students	Est. Tutors	Hrs/wk	Total Tutor Hrs/wk	Total Tutor Hrs/sem. (15 wks)	Cost/sem.	Cost/year
Kings.	50	25	4	100	1,500	4,500	9,000
Man.	40	20	4	80	1,200	3,600	7,200
Bronx	90	45	4	180	2,700	8,100	16,200
Queens	40	20	2	40	600	1,800	3,600
S.I.	30	15	2	30	450	1,350	2,700
Total	250	125		430	6,450	19,350	$38,700

NMG:bp

C. More Definitive Evaluation of the Effectiveness of the Tutoring Program

The 1969-70 year-end report will provide a more definitive empirical assessment of the value of the program, from which college administrators may make policy decisions with more surety than if such were made relying exclusively on the present preliminary assessment. As stated earlier, due to time pressures, incomplete data for certain classes, and limited sample sizes for several analyses, the empirical analyses presented in the last section do not provide tests of the statistical significance of the findings; i.e., from a strictly objective viewpoint, we do not know the extent to which the encouraging results found to-date are reliable. Next year's report will include such tests of statistical significance on complete data.

Further, at the end of next year, outcome data will be available for the 3rd and 4th semesters, reflecting the long range criteria upon which to assess the value of tutoring; i.e., by employing the same comparison groups as utilized earlier in this report, we will be able to study the effect of tutoring (vs. no tutoring) on 3rd and 4th semester final grades, as well as retention-in-program rates after two years of the nursing program.

Supplemental analyses will include the following:

1. the relationship between hours of tutoring and grade level achieved for all tutees, across all schools.
2. a comparison of tutees (choosers) and non-tutored (did not choose) with regard to background variables (e.g., age, marital status, high school performance, etc.) in order to:
   a) determine what distinguishes tutees from non-tutees.
   b) study the relationship between these background variables and the degree to which tutees benefit from the service in order to develop more adequate pre-selection criteria.

c) statistically control for any variable which distinguishes tutees from the non-tutored in assessing the value of the tutoring service, per se.

3. the relationship between the attitudes of the tutees toward the service they receive and the benefits they accrue via achievement indices.

D. Exploration of Refined Techniques to Enhance the Tutoring Service

1. Audio-visual Library of Tutors' Explanations of Specific Material

Throughout each semester, we found that certain topics (primarily systems and processes) seemed to be in demand for a quiz, the mid-term and the final. Some of the tutors, especially those who had many sessions each week, became experts on these topics, and students flocked to hear them (often, more than once). It might be an idea to put these lecture-explanations on t.v.-tape so that students could view them whenever they were free.

2. A Film for Orientation of Tutors

At some periods when tutors came in during the semester, the coordinators were too busy for a solid orientation. Some coordinators permitted the new tutors to start work; others had them sit in and watch experienced tutors and then confer about what they saw. Although the second procedure is superior to the first, it lacks the formality that we found generally useful. A better way of dealing with the situation would be to have these middle-of-the-term tutors view a film which showed an orientation and several tutoring sessions.

3. Development of Materials for a Pre-admissions Course

It is obvious that many students enter the A.A.S. Nursing Programs with general academic deficiencies. We suggest that these students be required to take a high intensity remedial course before they enter the college for the following reasons:

- People will gladly work very hard to qualify for entrance into a program. Once they've been accepted, however, remedial service (as distinct from tutoring in specific courses) is seen as a nuisance and is rarely utilized optimally even when made mandatory.
- For reasons stated throughout this report, it is wise for nursing students to participate in their whole program. Poor students (most especially) should not be kept from regular classes to make up deficiencies.

The kinds of things that might be dealt with in a pre-admissions course are: computation, logic, writing essay answers, writing papers, asking questions and biology vocabulary.

Some of the material for these skills is already available and is first-rate; some is available but needs modification; some needs to be developed from the beginning.

APPENDIX I

TUTEES' COMMENTS ON TUTORING PROGRAM AT KINGSBOROUGH

(Edited to avoid repetition but to be representative)

EXCERPTS FROM QUESTIONNAIRE 3/25/69

Why did you sign up for tutoring this term?

I signed up for tutoring this term for the simple reason that if I had any problem with a particular subject I would have someplace to go(1)*.

I signed up for tutoring this term because it proved very helpful in passing biology last term.(4)

I signed up for tutoring because I wasn't doing as well as I would like to have done. Science (Biology) is a big part of my major (nursing) and I felt I needed a better understanding of it.(28)

I signed up for tutoring this term because I felt that my mark was lousy. Even though I passed, a D is nothing to be proud of. If I would have had a tutor last term, I am pretty sure I would have gotten a better mark. I think that a tutor makes it easier for you to learn.(75)

I signed up for tutoring this term because it gives me confidence, and I have the oppprtunity to ask questions and also to review.(84)

I signed up for tutoring because I have difficulty studying and understanding what I have read.(500)

Last term my instructor failed to cover much of the material necessary for the course. I received a B on the course, but after the current term began, found I didn't have the basic background necessary to continue at a normal pace. As a result I requested a tutor, on the belief that additional coverage of current work with a simpler explanation of underlying principles would promote a more thorough understanding.(504)

*Code numbers of students; see Data on Tutored Upper Freshmen... immediately following for additional information.

What does your tutor do that makes it easier to learn? Be specific.

My tutor explains hard ideas in simpler terms. He makes a very difficult concept quite easy to tackle.(1)

My tutor goes over the material given to me by my lecture and lab instructors. His version is usually more complete--in depth. In knowing the reasons for certain steps or body activities, it's easier to understand their importance. He also tosses questions to you and if the answer is wrong he explains why.(4)

It helps me by just listening to the material to be spoken for another time.(8)

My tutor explains things in my "language." I am able to explain better to him my difficulties. He also goes at a speed where I am able to keep up with. If I don't understand something he'll go over it repeatedly until I do understand it. He also gives me written tests so that he can help me write my answers and where he can actually see where my troubles lie.(12)

Tutor goes over the material and then asks questions to make sure that I understand the material. He answers the questions that I ask him, and explains the work easier than it is explained in the text book. He goes over tests that I get back, and asks what didn't I understand about a certain question. He looks at my notes from lecture to get an idea of what my biology teacher went over in lecture.(75)

My tutor makes it easier by making things simpler to understand, he uses diagrams whenever possible, and he makes you feel relaxed, and therefore questions that you think are stupid you can ask, and you find out they are not after all.(84)

My tutor interprets the lab exercises for me, and thoroughly goes over the exercises till I can repeat them practically by heart; as well as understand them.(92)

Compare the way you feel this term going into a bio test with the way you felt last term (before we had tutoring).

Last term I felt that there wasn't any hope, whatsoever. Now since I have tutoring I feel more relaxed because I feel that we have went over specifically what is going to be on the test.(11)

Last term when I went into a biology test, I felt very nervous, and I felt that I didn't know all the material that I should have known. I wasn't sure how and what to study for. Now I usually know most of my work, and what is going to be on the test. My tutor goes over the material in detail, and when I take a test I feel like I know what I am talking about when I answer the questions. (75)

Last term and this term can't even be compared as to the manner of taking a bio test. The test items didn't even look "familiar" last semester. I had no concept whatsoever what the test was all about. To be more specific I was able to make out about 20% of the questions on the test (I didn't say answer--I said understand the questions. Now I feel I am prepared. I understand most of the questions (in fact on the mid-term I could honestly state that I understood 98% of the questions.(80)

I feel very confident in taking my bio test, and most times I can see things clearer because for some reason what the tutor tells me sticks more than when it is told by the instructor and I think this is because he is not rushed.(84)

I can't say I feel any different going to an exam this term than last since I was prepared to handle the material that had been covered last term, I had no feeling of inadequacy. However, I feel that lacking a tutor this term I would have been relatively unprepared since my knowledge would have been based on memorization rather than understanding. (504)

Why do you think biology is more difficult than the other subjects you are taking?

Biology is more difficult because you're exposed to many theories and ideas. In biology there is no inbetween. You either know or you don't. (4)

I feel that biology is more difficult than the others because most of the time I find the tests difficult. By this I mean the way in which the question is stated. (11)

I don't really think biology is more difficult than the other subjects I am taking, but I do feel that there is a considerable amount of material to study. In a subject like biology, I have to be prepared for a lab quiz every other week, and in addition, keep up with the lecture material. This is difficult to accomplish due to the time that I have to spend on my other subjects. (12)

I think that biology is more difficult than the other subjects that I am taking because it has a lot of memorizing in it. Some parts of it is difficult to understand and takes a lot of explanation. There is also a lot of material to be covered. Lab is four hours long and sometimes it seems that it will never end. It is a hard subject to study for a test because you don't know what is more important than something else. (75)

Biology is difficult - not enough time to understand experiments. (500)

EXCERPTS FROM QUESTIONNAIRE 6/16/69

Write a short description of your tutor. Include the following:

1. his (her) knowledge of the subject
2. his ability to get the material across
3. his responsiveness to your needs
4. his dependability
5. anything else

I think Mr. M is very well informed in Biology. He seems to know his stuff. He would turn an answer around and make it into a question. Every once in a while he would give us a test on the material. He does the best he can to bring out a point. (1)

Mr. R seems to know biology very well. Although he had taken the subject a couple of years ago, he was able to recall different points. In the beginning of our session he would go over our notes then take it from there. He went over everything twice until he was sure he got it across. He was very dependable he was here at every session. (3)

She knows what the nursing tests are like and gears her teaching in that direction. She would give information on the subject and ask a variety of questions to test my understanding of the material. She went over ideas which were a little difficult to understand. Whatever I had a question about, she would explain the reasoning behind the theory (idea). (2)

My tutor was Mr. M. He knew bio well and when he came to something that he wasn't sure about he would look it up in the book. He came to class with a prepared lesson which we would do after he had answered our questions. In order to reinforce our understanding of the material, he would give us a short test.

He used mainly essay type questions in order to help us on the final and on our lab tests. I was occasionally late for class but he was always there. (14)

I think my tutor will or would be an excellent teacher. His knowledge of the subject of biology is very extensive. He makes the subject seem so easy and interesting that you cannot avoid listening to him. His skills in getting the subject across is very good. He has never been tired or try to give up to our needs. He never seemed to be disgusted like some teachers do when asked a question over and over again. One thing that I really admire about him in tutoring was at the end of each topic that he explained he would say "Do you understand" or "Don't be afraid to say that you don't understand," then, if he sees a doubt in his students he would repeat the material (again) then ask questions to make sure that you understood. (23)

He seemed very well learned concerning biology. There were times though, that even he had to re-learn certain subjects. His ability to get the material across as far as this is concerned he did a darn good job. One thing about Mr. L, he doesn't give up so easy. He was quite responsive to all my needs. (82)

I liked my tutor because he could always tell when I didn't understand something even if I didn't say I didn't understand it. (75)

Miss J is a fantastic person as well as tutor. She is concerned with a special interest in each of her students. She is patient. She wants us to learn--its not a job to her! She has even offered to hold a session on Saturday at her home and we can always call her if we are puzzled. She is willing to make sacrifices for us. As for teaching--well my last important paper for Nursing would never have been complete without her. She helps us "read" into the intricate Nursing questions. Now I have more confidence in answering exams. (80)

How could you tell when you understood the material?

I knew that I understood the material because of my ability to explain it (the material) to some one else. (4)

I realized that I understood the material when I went to the hospital. The things we have discussed are practiced by both doctors and nurses. (2)

For one thing, the material stuck to me longer and I found it easier to understand and apply to other things. (11)

I could tell when I understood the material because we were tested during the tutoring session on it. Then during another tutoring session Mr. M would sometimes come out and ask one of us (by calling out our name) to explain to him the lesson from an earlier date. Believe me, if you could talk about something that was talked about 2-3 weeks before, then you understood the material. (14)

I could tell that I understood the material because when I went home and reread my notes they were much clearer. Also my grades improved on the tests. (24)

I could always tell that I understood the tutor by either re-explaining it to him or by drawing diagrams. I also had more confidence. (82)

When I went home to study, I found more time to review the work than actually learning it cold from the beginning. (92)

Did tutoring help you in any ways other than helping you understand the work?

Tutoring helped me realize that I know more than I think I do. I feel secure in most aspects of the material that was covered this term by my instructors. (4)

Besides helping me to understand the work, tutoring helped me to take tests. The tutor explained to us how to answer certain types of questions. (14)

Tutoring helped me to understand, in a lot of other subjects, what is important and what not to study. (75)

Using tutoring helped me to understand intricate questions on tests. (80)

Well, I am able to read the text with greater comprehension now. I feel more confident with tests. No longer do they appear to be written in Greek to me. (80)

Tutoring actually taught me also, how to memorize which is extremely important to know. (82)

Yes, he boosted my self-confidence in the course. (92)

What was the best feature of the tutoring program? What was the least successful feature?

The best feature of the program was its easy accessibility. Within a few days after applying for a tutor, you were assigned to one. (4)

It was like a studying period most of the time, where you went over things until they were understood. (11)

One of the best features of the program was that you were able to sit in on other sessions when you had the time. (11)

The tutoring on a whole was very good most of the time. Occasionally, if we failed to inform the tutor before time as to what we wanted to cover he wasn't as prepared as could have been. This is the student's error. (16)

The best feature of the program was that the program exists. I feel without tutoring a lot of students would not do as well as they are doing. (65)

The best feature of the program was that each tutor not only taught but we were treated as an equal and understood. The least successful feature was its too bad, in my case, that the timing had to be after a four-hour period in the hospital as I usually walked into tutoring exhausted. (82)

The best feature of the tutoring program is that other students act as tutors. The atmosphere, although serious, is more relaxed than if a member of the faculty were involved. The least successful feature is that because these people are students at other schools, they cannot prepare for the tutoring session and most of the hour is wasted by explaining where and how you are lost. Also one hour for me once a week has not been enough. (506)

How could we improve the program? Comment on such things as: number of students in a session, length of sessions, tutors, or any other suggestions.

I can't really see any way to improve the program. Although the program started out with two girls in each session, there were always more. Two hours was enough time to cover the questions we asked and we were also able to discuss new material. (11)

Have the girls determine the length of the sessions sometimes two hours is not enough, and other times three hours is too long. (24)

The tutoring program could be improved if the sessions were shorter, and more distributed throughout the week. Students tend to be tired sitting in a class for two hours at one time. (23)

There could be more students in a session simply because others can ask questions about material that you may not think of and so you learn more from others as long as it concerns the material you need. (28)

I like when there is about 2-3 students in a tutoring session. I feel that I learn more and when there is seven or eight students it is hard for the tutors to answer all the questions of the students. I think that much more is accomplished if there is only a few students with one tutor. Maybe if there were two tutors, then it might be all right to have a large number of students. The length of the sessions is good because biology needs at least two hours to go over something fully. (75)

It would be great if possible to have your tutor to go to the lab sessions, because sometime I feel that four hours are wasted because the hows and whys are not answered until the following week. To know what to expect and why you get certain reactions is more important during the procedure than later. (84)

Improve the program only by "keeping it going." Its the best thing that ever happened in Kingsborough Community College. The number of students in the session was small and better to comprehend and learn the work faster. Too many students usually holds up things. The length of my session was three hours which was plenty--sometimes too much. (82)

I believe there shouldn't be any more than one or two students in a tutoring session. It allows for deeper concentration. Two hours of tutoring in a day is sufficient in one way. One may become during the later part of the second hours, restless. On the other hand two isn't enough time because too few topics are covered. I think tutors should be 19 and over or in second or third year of college. I think they have a more settled mind, and causes their students to concentrate more; thus, benefiting more from the session. (88)

DATA ON TUTORED UPPER FRESHMEN (Spring '69)
KINGSBOROUGH COMMUNITY COLLEGE

CODE NO	HIGH SCHOOL	TYPE of DIPLOMA	AVERAGE	BIO I MID-TERM	BIO I GRADE	BIO 2 GRADE
1	Tilden, N.Y.C.	Acad.	77.29	C	B	A
2	Canarsie, N.Y.C.	Gen.	75.30	D	D	F
3	Sheepshead, N.Y.C	Acad.	76.4	C	C	B
4	Jefferson , N.Y.C.	Gen.	75.3	D	C	B
7	James Madison N.Y.C.	Acad.	79.68	D	C	C
8	Lafayette, N.Y.C.	Acad.	81.69	B	B	A
11	Clara Barton, N.Y.C.	Voc.	76.1	F	F	F
12	Sheepshead, N.Y.C.	Acad.	77.11	F	D	C
13	Auburn Acadamy, N.Y.C.	Acad.		C	D	D
14	Taft, N.Y.C.	Acad.	77.3	C	C	A
15	Erasmus, N.Y.C.	Acad.	77.8	C	A	B
16	John Jay, N.Y.C.	Acad.	76.47	F	C	D
20	St. Brendan's, N.Y.C.	Acad.	78.0	F	C	D
21	Central Evening, N.Y.C.	Gen.		F	F	D
22	Clara Barton, N.Y.C.	Voc.	76.1	D	C	B
24	Bishop Kearney, N.Y.C.	Acad.		D	C	B
25	Lafayette, N.Y.C.	Acad.	78.3	C	C	F
27	St. Brendans, N.Y.C.	Com.	79.8	F	D	D
28	Hartford Public, Conn.	Gen.	76.7	F	D	D
29	Erasmus, N.Y.C.	Acad.	78.4	F	D	W
34	Tilden, N.Y.C.	Acad.	84.9	C	C	C
35	Clara Barton, N.Y.C.	Voc.	76.2	F	F	F
37	Central Evening, N.Y.C.	Gen.	80.1	F	F	C
39	Risley, Georgia	Acad.	84.8	F	F	D
40	Clara Barton, N.Y.C.	Voc.	80.7	F	F	C
43	Jane Adams, N.Y.C.	Voc.	76.0	D	F	F
45	Clara Barton, N.Y.C.	Voc.		F	D	C

CODE NO	HIGH SCHOOL	TYPE of DIPLOMA	AVERAGE	BIO I MID-TERM	BIO I GRADE	BIO 2 GRADE
47	Jefferson, N.Y.C.	Gen.	66.8	B	B	B
51	Passaic, N.J.	Acad.		F	D	C
58	Clara Barton, N.Y.C.	Voc.	80.0	F	F	F
61	Clara Barton, N.Y.C.	Voc.	82.4	F	F	Inc.
64	Tilden, N.Y.C.		82.7	D	D	C
65	Abraham Lincoln, N.Y.C.	Com.	76.3	F	F	F
67	Lafayette, N.Y.C.	Acad.	77.05	F	D	D
69	St. Edmunds, N.Y.C.		73.0	F	D	F
71	C.E. Hughes,N.Y.C.	Acad.	77.53	C	C	B
74	Prospect Heights,N.Y.C.	Gen.	77.15	D	D	C
75	St. Josephs, N.Y.C.	Gen.	79.	F	D	B
76	Hicksville, L.I.	Gen.		F	C	B
80	St. Edmunds, N.Y.C.	Acad.	80.4	F	D	C
82	Clement, N. Carolina		86.7	F	D	C
84	B.T.Washington, Alabama	Gen.		C	C	A
86	New Utrecht, N.Y.C.	Acad.	79.2	F	C	C
88	Clara Barton, N.Y.C.	Voc.	78.5	F	D	F
89	Jefferson, N.Y.C.	Gen.	78.55	F	D	F
90	Disley, Georgia	Acad.	87.4	C	D	F
91	G. Cleveland, N.Y.C.	Acad.	76.58	F	F	D
92	A. Lincoln, N.Y.C.	Comm.	84.48	C	C	B

NMG:bp
7/1/69

APPENDIX II

TUTORS' FINAL REPORTS

MR B.

[redacted] [redacted] FINAL REPORT 1969 (SPRING)

(1) write a short description of each of your regular students.

1) [redacted] (51)

Bright, highly motivated and not lazy usually prompt and attended the tutoring sessions regularly. above average intelligence Quiet and unassuming but very dependable with respect to preparation and perseverance. Good sense of awarness and motivation shown when she constantly wants to move on to new topics and things she does not clearly understand. Not afraid to interrupt to ask questions. She started out with grades in the 70's but dropped lower when she felt overburdened with her other courses She thus tended to lose some of the self confidence she had at the beginning, "I'm trying for at least a C or higher this term!" Now that the final is the last hurdle, she should be able to ~~put on~~ finish strongly with at least a C grade She has a D locked up in the course, but I feel that with a decent mark on the final she will pull through with a C.

2) [redacted] (91)

Very bright with above average intelligence Tends to be lazy and shows little self confidence up until a short time ago, she had little motivation "I can always get another job if I flunk nursing" She started out arrogant, unreceptive, and disinterested. Her attendance was irregular and she seemed to be overcome by the amount of studying required by the course. By the time of the second lecture test, she had received numerous lectures from myself and Mrs Glomzock and suddenly changed her attitude. She began attending regularly and actively participated in the discussions. Her grades picked up and her labwork was highly improved. Her main hangup is still the fact that she understands the material but is unable to explain it when asked to do so. She tends to mix up defintions and whenever she repeats an answer there is invariably something lacking, a word, a phrase, etc and thus it comes out wrong although she knows what she's talking about. The best remedy for her problem seems to be constant goading and ~~[illegible]~~ intimidation so she will be forced to study dilligently. She is very emotional and apprehensive so I tried to gain her friendship by talking to her from a fellow students' point of view rather than from a position of authority. This seemed to work and now we communicate very easily. With her determination so high and in view of the grades she has been getting, I think she will end up with a D.

3) [redacted] (80)

Bright and highly motivated. Very friendly and receptive. She is willing to do the work dilligently but when it comes to a test, her self confidence is low. Her personal problems at the beginning of the term caused her to achieve grades which are certainly not indicative of her capability. Her confidence is so shaky that she tends to "freeze" on tests, mixing up definitions and making careless errors" I would have gotten an 89 instead of a 79 had I not reversed the answer from the way the question asked for it." Her work load prevents her from devoting adequate time for all of her courses and this contributes somewhat to her problems in biology. Her note taking is often innacurate and she blames this on the fact that the teacher speaks too fast. Her determination should pull her through and I expect her to make a good showing on the final exam. Of all the girls I have had this year, I think that she is the most serious and sincere about her goal as a nurse. When she does become a nurse, she will be very compassionate and dilligent due to her friendly personality. She has a D locked up and with some luck she should pull through with a C.

4) [redacted] (20)

average intelligence. Friendly. Low motivation. She doesn't seem to be interested at all in the material. She has too many outside committments to allow for sufficient time for study. She gets little out of the tutoring because she leaves after 1 hr. each session and by that time the session just begins to move into "high gear". She takes poor notes and relies too much on her memory ~~at~~ In any course, note taking is much more useful than relying on memory. She wants to do well but she can't force herself to study. She asks few questions and when I ask her if she understands she replies affirmatively but when she is asked to repeat, she usually can't. The remedy for her problem seems to be more hours of tutoring. Her grades in lab are good but her lecture tests are poor because the lab work is much more interesting to her than memorizing lecture notes and reading the text. Right now her grade is a D but optomistically, she can pull a C if her final exam grade is a high C or low B.

(2) which methods did you find most usefull? which were not successful at all?

The girls usually understand the lecture material. I found that they were bored by simple lecturing on the text and much more receptive when we reviewed the lab work step by step and answered all the questions. The lab work tended to integrate all the material on any topic and invariably the lecture material was covered anyway in the discussions on the material in the lab manual. Most of the material was pure memory so reviewing it from the text was useless. The theoretical material on physiology was usually more difficult so lecturing on this first and then going over the lab work on it was most effective. In the discussions, I found it most effective when I told them the answer then asked them to repeat it in their own words and the later on in the discussion, bring up the same question to see if they had remem~~rem~~bered it and understood it well enough to repeat it. Drawing diagrams on the board and giving analogies to the physical world also helped immensely.

(3) why was it less difficult to absorb the material when you taught it?

I repeated myself many times until I was sure that my ideas were fully understood, I spoke at their level, using less flowery language than the instructor would, I drew examples on the blackboard, and I tried to relate theoretical ideas to real life so they could feel that what they were learning was not nonsense but had some meaning in scheme of the world. By looking at myself from their point of view, I ~~felt~~ knew that they were absorbing the material when I felt that *I* myself was absorbing the material, making believe that it was new to me too.

④ *How could you tell you were getting the material across?*

Certainly not by asking them to nod their heads because a person will nod his head out of courtesy or out of fear of exceeding the instructor's patience by asking a "stupid" question. Only when they were able to repeat *in their own words* and to give examples, was I sure that they knew what I was talking about.

⑤ *Do you think you've gained anything from being a tutor?*

Tutoring has given me a better understanding of people whom I ordinarily would not meet or come into personal relationships with. It has confirmed my long standing conviction that most people have the same intelligence and are willing to work hard to achieve their goals in life, but that some do better than others because they are more highly motivated than others for any number of reasons, and certainly, those less motivated can be taught to do as well as those more highly motivated. Finally, I feel ~~that~~ satisfied by the fact that instead of just making noise about the shortcomings of society as many militant students seem to be doing these days, I have quietly tried, by giving up one full year of my time, to do something *Contructive* to alleviate the inequality of our educational system.

⑥ How did you feel about tutoring before you started? How do you feel now?

Before I started, I felt very skeptical about the effectiveness of myself as a tutor and such a program in general. Now, after a year at it, I feel that I have the capacity to impart information to other people effectively and my original desire to become a college instructor has been greatly enhanced. With respect to the program, I still feel skeptical about its effectiveness with respect to C and B students but I must certainly admit that D and F students can only profit greatly with the right kind of guidance.

(7) Recall the best and worst moments you experienced as a tutor.

The best moment was when a former tutee came to me the term after I had tutored her and told me that it was because of me that she was able to pass the course. The worst moment came when my tutees told me that one of my statements was found to be incorrect by their teacher. This made me feel quite embarrassed but nobody's perfect!?!

(8) Why did you become a tutor?

a) for the money
b) for the experience in teaching
c) for the satisfaction of helping someone else besides Mr. B [redacted] advance
d) for the opportunity to change society without having to burn down college campuses.

(9) What would have made your work more effective?

I could have been more effective had I been able to sit in on classes to gain a better idea on what the teacher stressed, lecture notes could have saved a lot of unnecessary preparation, previous tests would have helped, as would a reliable key to the lab manual (nobody's perfect!), use of the laboratory, a steady room schedule, charts and other visual aids (models, specimens), a reliable syllabus on which to base my preparation and discussion.

(10) what suggestions would you make?

The textbook is too factual and wordy. Its organization is terrible since related topics can be found 300 pages apart. It does cover most of the material however, and its up to date and the lab book coincides nicely with it. Such a text is too comprehensive for a nursing class but the lab book is good. In the course itself, there should be much less stress on pure memorization and less study on strictly descriptive anatomy. Physiology and a study of human diseases would be much more interesting for girls becoming nurses. Theoretical material like glycolysis and photosynthesis are ~~[illegible]~~ great ~~to~~ for a future researcher or teacher but for a nurse these topics are useless. Practical biology (analysis, instrumentation, physiology, cytology, dissections etc) and modern biology should be stressed ~~[illegible]~~ over classical and theoretical biology. also, it would be helpful if the girls had ~~to~~ a comprehensive syllabus to guide their study and stress the important topics over the lesser ones. The course can be made into a 1 term sequence consisting of 1 lecture hour and 4 lab hours / week (but who listens to foolish tutors?). Finally, don't judge a tutor by his index and try to get them right after they've taken Bio 2 at Brooklyn College so the material is fresh in their minds.

Miss J. Nursing Tutor

[redacted] - ㉒

a) Her academic problems are due to her background (schooling). She has difficultly in remembering facts or relating situations to facts.

b) Most of the time I tutored [redacted] by herself. When ~~[illegible]~~ other students were sitting in on her session she did not actively participate. Gail does not ask questions on her own ~~[illegible]~~ or answer unless she is ~~[illegible]~~ provoked.

c) [redacted] appears to be more at ease with me than when we first started. Dr Kessler said that her Labor + Delivery paper started out to be one of the best she has ever read but then fell short. This is a change since before none of her papers ever showed the possibility of becoming a good piece of work

d) I am not qualified to judge her intelligence

e) [redacted] is dependable she has never missed a session since we started. Just recently I noticed her becomming ~~more~~ more responsive. She is not motivated easily. Several times I told her to call me if she had any problems. Instead of calling me she would wait till our next session to ask a question that was bothering her. [redacted] is a shy, unconfident girl. She is a very sweet + lovely person.

[redacted] ⑧

a) [redacted] only problem is that she worries too much.

b) [redacted] participated actively in the sessions all the time. She doesn't hesitate to answer questions or ask. She contributes her knowledge during the sessions

c) Her paper on Labor + ~~Delivery~~ Delivery was beautiful + the highest grade she has received on any paper.

d) I'm not qualified to answer this. I do think that she is bright + learns quickly.

e) She is highly motivated [redacted] is also dependable, if I ask her to look something up in the text, she always does. She is sweet + in my opinion going to make a good nurse.

[redacted] ②

a) [redacted] has difficulty in understanding questions because of her vocabulary. In her nursing papers she becomes very vague + cannot effectively present the information.

b) [redacted] would ask questions but seemed afraid to answer. Unless I called on her she did not answer mine or another students question.

c) I honestly don't know. I feel that she had more confidence in submitting her nursing paper, but this fell through when she received her grade.

d) You can tell [redacted] to do something in the physical care of the patient, but she can't grasp the underlying principles of why its done.

e) [redacted] does show that she is motivated but it's last min. She allows everything to wait ~~tto~~ till the last possible second. ~~Carmen gets pleasure from~~ [redacted] is a sweet person, she cares about her patients.

[redacted] (80)

a) She makes carless mistakes + doesnt have confidence in her decisions

b) [redacted] participated in the sessions actively. She asked questions + answered with out being asked. At times I did call on her to give me answers.

c.) She has more confidence in answering questions. She also is able to answer questions which require thought + she no longer (I hope) assumes that things are taken for granted when answering questions on an exam

d) I think she is a bright girl + can grasp things with out too much difficulty.

e) [redacted] is a lovable person. She is dependable + responds to my questions + hints I give

I found that by ~~[illegible]~~ giving a lecture type session with questions directed to the girls ~~they~~ It was most Ssuccessful To enhance this was enabling the girls to ask questions any time + discussing ~~it~~ personal situations (their experiences) + relating them to the material being presented.

"Making the students "teach" me by

assuming the role of a student who didn't understand was not as successful. Asking them to explain things to me with the help of the other tutees was more successful.

It was less difficult to absorb the material I taught because I summerized the material, related it to them in familiar terms + situations. I also went slower + reinforced the material I taught through out each session

I could tell that the material was getting across when they were able to answer my questions + each others. They were able to describe a situation + apply what I had taught them to recognize specific characteristics + interventions

~~I thoug~~ Tutoring helped me review material which is going to be on my State Boards. I ganed some insight on why people has trouble in taking exams. Helping someone always gives me a good feeling (that's evident since I am going to be a nurse) + helps to increase my self esteeme.

I was indifferent to tutoring before I started. Now I enjoy tutoring to the extent that I am considering the possibility of becoming a teacher.

~~All the moments~~ The best moment I had as a tutor was every moment I tutored. I loved the students + every session. I didn't have one bad time except when I found out the grades on their last exam + the grade on [redacted] paper.

I became a tutor to earn money for my husbands birthday present.

⑨ If the instructor would have given me old exams to use as review my work could have been more effective. Usually it is easier to have more than one student to tutor especially if the only student is a withdrawn person. [redacted] should have been able to be tutored together.

⑩ Good notes are essential. Help should be provided on the written papers. The material should be related to personal experiences. Quizes should be given

I really enjoyed nursing + teaching it to my students. I thought that the girls are wonderful and all have to be motivated to come to the sessions. I have empathy for these girls + want them to be good nurses. I hope that besides passing their exams they have learned from my tutoring things that they can apply ~~to~~ in caring for patients.

[redacted]
p

[redacted]

[redacted] is a highly motivated girl who participates very frequently in discussion during the sessions. She is bright, but her problem lies in taking tests. Too often she will not answer the specific question involved even though she knows the topic very well. She has a habit of concentrating on a specific word and miss what they are asking for. I would like to see her get a B in the course.

[redacted] (31)

[redacted] is a smart girl whose strong motivation has been damped a bit by her failure to do well in school. She has the same problem with tests that [redacted] has. She as well as [redacted] have gained more confidence since the beginning of the tutoring program. She participates less than [redacted] and is more prone to be reticent. I expect her to get a C.

2) Among the most sucessful techniques were: Lecturing of the material before it was to be covered, diagrammatic explanation, and free question and answer periods about topics that I or their teachers have covered. I found the textbook overly complex and confusing

3) It was easier to understand the material when I taught it because the students were at complete ease and free to ask anything that troubled them.

4) I could tell I was getting the material across when their faces lit up. Then I asked them questions to check.

5) Tutoring was especially instructive in explaining to

me some of the details of the learning process and in delineating between intelligence and the ability to take tests.

6,7,8) Tutoring has been the most rewarding gainful employment I've ever had. It was something that I could do and see the effect in direct human terms. I had no real best or worst moments. I became atutor because I needed the money.

9,10) I have made most of my suggestions already to you but I might add again. It would be a great help if the tutors could meet with the instructor. I personally think the couse should be more nursing oriented, The text book is irrelevant. etc etc.

[redacted]
Mr. K.

1. A. Description of the students

[redacted] - She didn't seem to have any real problems. She is a bright student and I am surprised that she only got a C last term. She should receive a B this term barring any unforseen developments.
(4)

[redacted] - [redacted] definately doesn't belong in the tutoring program. She is a very intelligent and bright student that grasps the material quickly and easily. Her class work in class reveals that she knows 80% of what you're going to say. Both she and [redacted] were in the same tutoring hours and they participated to a very great degree making my job much easier.
(47)

[redacted] - Her main problem is that she isn't sure of herself. There were times I thought she knew the answers to my questions, but she would always be uncertain. She is a bright student but she gets too easily flustered and confused. She also should study a bit harder. I really cannot estimate her final grade.
(61)

[redacted] - [redacted] was the complete opposite of [redacted]. She was extremely quiet and getting answers out of her was like pulling teeth. This I think was her main problem. Being quiet about what she didn't know, and not asking questions worked against her. I also don't think she worked hard enough. She also was unable to take notes—meaning that she took down every word rather than the most important information. I am afraid
(92)

to say it, but I think she may be heading for another D.

[redacted] - Her position is that her family ~~responsibilities~~ responsibilities stand in the way of her schooling. She was very talkative, and not about biology. She doesn't have the time for study (and I think that if she does have some free time she'd rather talk about her kids). She makes a good effort, but I think her work will not improve significantly.

[redacted] - [redacted] worked the hardest of all my students. Her lab manual was complete, her notes were substantial and she studied hard. These efforts didn't go unrewarded. She did well on lab quizzes and received an A on the midterm. It was Abby who usually got [redacted] and myself back on track after we had meandered into one of [redacted] family problems. She knows her material and I don't see why she shouldn't get an A or a B

(12)

2. I have found that teaching the subject and having a question and answer period is the best method. Asking the tutees for questions hasn't been very successful in many cases. By teaching the subject I mean lecturing on it - this enables the tutees to catch the second time what they missed on the first time. This method elicits questions from the tutees and I can see where their problem usually ~~[illegible]~~ is. Using the board and explaining things diagrammatically is very essential.

3 I think it was less difficult to absorb the material when I taught it because I explained things in the simplest terms and I showed things on the blackboard. I also explained things in such a way as to

ad leaving the interpretation up to the student. - I didn't want to tutor opinions of biology and wanted to tutor the facts. I also carried the subject through to completion - I didn't leave them hanging in mid-air. Having taken bio. in high school and majoring in it in college I know, and have a feeling for those areas were a good explanation is essential for grasping the idea. I also think that having a peer tutor rather than some pompous professor tutor is better because the former can not only see the difficulty because he's in the same age group), but can explain things in the jargon and lingo of that tutee and make it seem more relevent

4 ~~As~~ I could tell when I was getting it across when something "clicked" in their eyes. It was [redacted] as though the gears were finally turning. I could tell more analytically when I quizzed them for answers.

5. ~~I~~ I've gained a great deal being a tutor. I've always wanted to do something of this nature and doing it has made me even more confident of myself. I can appreciate the effort ~~made~~ being made by my instructor to teach me. I can see the situation from both sides now and the cognitive of the whole process

7. The best moment I had as a tutor was when [redacted] phoned me to tell me she had gotten a 92 on an exam. She was very

thrilled and so was I. It made me feel part of a very important and very essential process. My parents got the news before I did and I could see that they looked at me in a new light, with a bit more respect for my abilities and capacities. I don't think they realized my potential. I felt like being on cloud nine — I really was very excited with myself and my people.

8. I guess I became a tutor primarily because I have always liked to help. Even when it sometimes puts me in a condescending position I still like to help. The three dollars per hour didn't ~~[illegible]~~ dissuade me either. I needed the money and at the same time would be helping people who might have to work with me in the near future (I hope!). I knew I could do the job and that is why I undertook it.

9. The work would have been more effective ~~but~~ had I had an outline of the instructors lectures. I could then see what he was stressing and what the direction and goal was. Knowing what the instructor want and demands I could properly instruct my tutees in this manner.

10. The textbook wasn't being used and it should be so I feel that ~~[illegible]~~ work should be either changed in the text or it should be done away with. The students are simply not using it. Recent books and shorter, abridged texts with the bare facts would be of more value to these students to whom time was expensive premium

[redacted] Univ. E.

1)

[redacted]: (61) She does not seem too motivated to learn. Very frequently (most of the time) she does not do the readings assigned. When we did discuss the chapters she had read, I found that she had not underlined or taken any notes on the important information. She did not participate at all in the sessions and I was never sure what she understood, or if she was benefiting at all. The general impression she gave me was that she was bored stiff. I do not think her intelligence is suitable for college because she is generally sluggish and not questioning. [illegible]

[redacted]: (11.3) [redacted] is a little more responsive. She asked questions and related the material discussed to other relevant examples. I think her main problem was incorrect studying. Both [redacted] and [redacted] (and alot of other girls)do not seem to know how to study. If they are getting a short answer test, they do not specifically study terms and names. The girls also admit that they do not devote as much time to the subject as they should. I did not find [redacted] to be very dependable as she did not show up at a specially set up Sunday session at Brooklyn College, neither did she bother to call me and cancel the session. I [illegible] both [redacted] [redacted] for their midterms [illegible]

[redacted]: (11.[illegible]) I really enjoyed tutoring Michelle. She seems to absorb the material quite well and is enthusiastic about what she learns. She is a sharp girl and our discussions were quite lively. She was familiar with the material in most cases before our lesson. When she did miss a lesson, she called me that night and apologized. She was running a low C before our lessons, and received a B in the midterm. I would estimate her intelligence to be above average. (110 - 125 I.Q.) Unless she neglects her studying, she should get a B as a final grade.

[redacted]: [redacted] was in my session together with [redacted]. She also was quite questioning and quick to grasp terms and definitions. Both girls let very little pass without nodding understanding or asking questions. [redacted] however does not seem as fast and sharp as [redacted]. She does take her work quite seriously and frequently expressed this. They both indicated their enjoyment of Dr. Simon's lessons and invited me to sit in on one. I would have to estimate her final mark however to be a C.

[redacted]: I only tutored [redacted] for 3 lessons, two of which I did not have the textbook. For the second lesson, I taught the mechanisms of defense using another source, and the girls did not seem to be familiar with any of the terms. However, after looking through their text I found everything I had just taught in the chapters they said they were to be tested in. She did take careful notes of everything I said, and asked a few questions when she was in doubt. [redacted] also did not show up for a session and did not bother to call the school or get in touch with me.

Although the text that was being used in Psych 11 was quite a hard one, I do not think [redacted] is quite intelligent enough for college.

[redacted] I tutored [redacted] with [redacted]. [redacted] also had fallen quite behind [illegible] in many chapters of the text. She took careful notes and responded with questions. I do not think the girls devote as much time as is necessary for them in their studying. They impressed me as being quite slow because they very often questioned the meaning of some of ~~the~~ my vocabulary (such words as pre marital). I think both [redacted] and [redacted] will get a D.

2. a. I found that discussing the terms and giving examples and illustrations made the terms more meaningful and not just a matter of memorization. It brought the material home to the girls and I think it also made it more interesting.

b. I tried to develop the material by first askin g questions, hoping they would come up with the right answers, but if they did not do the reading (they always knew what chapter we would be doing the next week) then it took took long and too much aimless talk to get at what I wanted. Wherever possible I did ask as many questions as possible however.

3. The girls have indicated to me that most of the time their teachers just focus on one point of their readings and develop it further. Thus they are left to complete and understand the chapters by themselves. Naturally, if the subject is not well liked, the readings will not be done and the entire subject will be neglected. During our sessions, I completely covered the readings as they were being tested. In addition, I think in a smaller setup, the girls are not as apprehensive in asking questions, as they are in a larger class.

4. When the girls asked questions and tried to apply the material to another situation, then I felt they had understood. If the girl just took notes and did not respond in any fashion, then the lesson was not as meaningful.

6. I consider Psychology to be a reading course and before I started tutoring I had doubts as to how one can be troubled by the subject. Now I feel that either a girl does not like the subject to the extent that she neglects her work, or that she is not capable enough.

7. The best moment as a tutor was when [redacted] informed me that she received an 84 in her midterm. I felt that I had really helped her. The worst moment was this Sunday when I interrupted my schoolwork to meet [redacted] by Brooklyn College to give her another two hours before her final. She did not show up and when I called she told me that her teacher withdrew the last 3 chapters from the final and she meant to call me up. I felt that I had done more worrying for her final than she did.

8. Although I became a tutor for the money, I found that after the first lesson, there was a certain pride in trying to raise each girl's grade.

9. Sessions should be run with a maximum of 2 girls to a tutor because otherwise the individuality is lost.

APPENDIX III

TUTOR'S EVALUATION FORM

KINGSBOROUGH COMMUNITY COLLEGE

NURSE TUTORING STUDY
of
The City University of New York

Tutoring Site Kingsborough

TUTOR'S EVALUATION FORM

Mr. R

Names of tutees [redacted]

[redacted] (45)

Name of tutor [redacted]

S.S No. 088-36-1899

Date 11/3/68 Time started 5 PM Time finished 7 PM Total time 2 hours

Course (or subject) Biology Instructor's name ______

****

ANALYSIS OF SESSION

TREATMENT

TYPE OF MATERIAL	Reading	Oral Ques.	Written Ques.	Discussion	Memory Devices	Other
Textbook		✓			✓	
Review book Workbook		✓				
Teacher-made reading	[illegible]					
Tutor-made reading	✓					
Vocab.(source						
Other						

STUDY SKILLS
____ Reading comp.
Taking notes:
____ from written material
✓ from lecture
Devising memory
✓ schemes
____ Using the dictionary
____ Using ref. books
____ Using the library
____ ____________
____ ____________

PROGRESS

We covered quite a bit today. The topics were covered well — the 3rd [illegible] introduction to them not lab. Both tutees are eager to learn and I hope they will improve considerably.

PROBLEMS (Discuss any: the materials, the tutees, your own preparation, the space; etc.)

One of my tutees, [redacted] needs a bit more work on the fundamentals than [redacted] — I therefore had to work at a more basic level than [redacted] could have worked on.

Evaluation of session 1 very poor 2 3 4 5 6 [✓ 7] 8 9 10 excellent

Material (or skills) to be covered during the next session I hope to go into the chemistry of organic compounds — working up to proteins and peptide bonds. Both girls expressed a need for this.

Signature of tutor [redacted]

NMG:bp
10-31-68
#3

For Mrs. Glanzrock

KINGSBOROUGH COMMUNITY COLLEGE

NURSE TUTORING STUDY
of
The City University of New York

Tutoring Site Kingsborough

TUTOR'S EVALUATION FORM

Names of tutees [redacted]

[redacted] (45)

Name of tutor Mr R. [redacted]

S.S No.

Date 14/10/68 Time started 5 Time finished 7 Total time 2 hours

Course (or subject) Bio 11 Instructor's name

****

ANALYSIS OF SESSION

TREATMENT

TYPE OF MATERIAL	Reading	Oral Ques.	Written Ques.	Discussion	Memory Devices	~~Other~~ Diagrams
Textbook	✓	✓		✓	✓	
Review book						
Workbook						
Teacher-made reading						
Tutor-made reading		✓		✓	✓	✓
Vocab. (source						
Other [illegible]						✓

STUDY SKILLS
- ____Reading comp.
- Taking notes:
- ____from written material
- ____from lecture
- ____Devising memory schemes
- ____Using the dictionary
- ____Using ref. books
- ____Using the library
- ____ ______________
- ____ ______________

PROGRESS

(1) Cell metabolism

(2) photosynthesis

(3) organic compounds (sugars)

PROBLEMS (Discuss any: the materials, the tutees, your own preparation, the space; etc.)

There was a great deal of problem deciding upon what was required by the instructor & what not. Instructor covered some things that were not available, in terms of reading information, to the student

Evaluation of session 1 very poor 2 3 4 5 [✓ 6] 7 8 9 10 excellent

Material (or skills) to be covered during the next session (1) Endocrine System

(2) DNA & Nucleic Acids

(3) Finish, if possible, discussion of organic compounds i.e. proteins, Lipids

Signature of tutor [redacted]

NMG:bp
10-31-68
#3

KINGSBOROUGH COMMUNITY COLLEGE

NURSE TUTORING STUDY
of
The City University of New York

Tutoring Site Kingsborough

TUTOR'S EVALUATION FORM

Names of tutees [redacted]

[redacted] ⑮ (did not come)

Name of tutor [redacted] Mr. R.

S.S No. 088-36-1[illegible]91

Date 11/28 Time started 11:00 Time finished 1:00 Total time 2

Course (or subject) Bio II Instructor's name

****

ANALYSIS OF SESSION

TREATMENT

TYPE OF MATERIAL	Reading	Oral Ques.	Written Ques.	Discussion	Memory Devices	Other Diagrams
Textbook	✓					✓
Review book Workbook						Problems ✓
Teacher-made reading						
Tutor-made reading	✓			✓		✓
Vocab.(source						
Other [illegible]				✓	✓	✓

STUDY SKILLS
- ☐ Reading comp.
- Taking notes:
  - ☐ from written material
  - ☐ from lecture
- ✓ Devising memory schemes
- ☐ Using the dictionary
- ☐ Using ref. books
- ☐ Using the library

PROGRESS

1. Photosynthesis
— [illegible] cyclic + non-cyclic reactions
— [illegible] reaction
2. Genetics -- only begun
— genotype + phenotype
— problems
3. Structure of Matter (Atoms Electrons)

PROBLEMS (Discuss any: the materials, the tutees, your own preparation, the space, etc.)

[redacted] did not show up!!

I might add that [redacted] seems to understand what we discuss well.

Evaluation of session 1 very poor 2 3 4 5 6 7 8 [✓ 9] 10 excellent

Material (or skills) to be covered during the next session

Organic Compounds
Utilization of Energy

When [redacted] will also be present!

Signature of tutor [redacted]

NMG:bp
10-31-68
#3

KINGSBOROUGH COMMUNITY COLLEGE

NURSE TUTORING STUDY
of
The City University of New York

Tutoring Site KCC

TUTOR'S EVALUATION FORM

Names of tutees [redacted] ⑧
[redacted] (80)

Name of tutor Miss J [redacted]

S.S No. 122-38-3103

Date 4-24-69 Time started 12:00 Time finished 1:00 Total time ______

Course (or subject) Nursing Instructor's name Dr Kessler

****

ANALYSIS OF SESSION

TREATMENT

TYPE OF MATERIAL	Reading	Oral Ques.	Written Ques.	~~Discussion~~ Explanation	Memory Devices	Other
Textbook						
Review book Workbook						
Teacher-made reading						
Tutor-made reading		✓	✓	✓		
Vocab. (source						
Other						

STUDY SKILLS
____ Reading comp.
Taking notes:
____ from written material
____ from lecture
Devising memory
____ schemes
____ Using the dictionary
____ Using ref. books
____ Using the library
____ ----------------
____ ----------------

PROGRESS

Summarized the onset of labor
Discussed nursing care needs
of the pt in the first stage of labor
Discussed stages of labor full
discussed the characteristics of
the first stage, breathing +
emotional reactions of mother
They appear to know a reasonable amt of content

PROBLEMS (Discuss any: the materials, the tutees, your own preparation, the space, etc.)

Having to move from room to room.
[redacted] appears to be more outgoing +
overpowers [redacted] to the pt I have
to ask [redacted] to allow [redacted] to answer
More written ~~good~~ answers are necessary

Evaluation of session 1 very poor 2 3 4 5 6 7 [✓ 8] 9 10 excellent

Material (or skills) to be covered during the next session Second stage of labor
characteristics of the newborn + developmental tasks. More
explanation by students of material presented. Quiz on
first stage of labor. Possibly making suggestions on written paper

Signature of tutor [redacted]

NMG:bp
10-31-68
#3

1

KINGSBOROUGH COMMUNITY COLLEGE

NURSE TUTORING STUDY
of
The City University of New York

Tutoring Site KCC

TUTOR'S EVALUATION FORM

Names of tutees [redacted] ⑧ [redacted] ⑯ [redacted] (80)

Name of tutor Miss J. [redacted]

S.S No. 122-38-3105

Date 5-1-69 Time started 12 Time finished 2 Total time 2 hrs

Course (or subject)________ Instructor's name________

****

ANALYSIS OF SESSION

TREATMENT

TYPE OF MATERIAL	Reading	Oral Ques.	Written Ques.	Discussion	Memory Devices	Other
Textbook						
Review book Workbook						
Teacher-made reading			✓			
Tutor-made reading		✓	✓			
Vocab. (source						
Other						

STUDY SKILLS
____Reading comp.
Taking notes:
____from written material
____from lecture
Devising memory schemes
____Using the dictionary
____Using ref. books
____Using the library
____ ________________
____ ________________

PROGRESS

Ivy, Jean-Jean + Chris did well w/ their assignment dues on Labor + Delivery unit. Explained what Dr Kessler expected + pointed out what they should include although it wasn't directly asked. Started care in the labor room. pointed out what should be stressed for exam on Tues. Asked the girls if they had any criticisms or comments on session, replied no + that they felt I was accomplishing what they desired

PROBLEMS (Discuss any: the materials, the tutees, your own preparation, the space, etc.)

I had already gone over the first stage of labor c̄ [redacted] wanted me to review but the others wanted to go on. I went over the test which did have important facts concerning 1st stage of labor. We found a room but was disturbed by Bongo drums being played in the next room. Had to find some place else to work in

Evaluation of session 1 2 3 4 5 6 7 8 9 10
very poor — excellent

Material (or skills) to be covered during the next session

Quiz on immediate post partum? Start ~~etc~~ with the characteristic of the new born + assessment of needs. Look at students papers on labor + delivery + make suggestions where needed + give praise where earned!

Signature of tutor [redacted]

NMG:bp
10-31-68
#3

KINGSBOROUGH COMMUNITY COLLEGE

NURSE TUTORING STUDY
of
The City University of New York

Tutoring Site 1

TUTOR'S EVALUATION FORM

Names of tutees [redacted] ⑧ [redacted] (80) [redacted] (16)

Name of tutor Miss J. [redacted]

S.S No. 122-38-3265

Date 5-15-69 Time started 12 Time finished 2 Total time 2

Course (or subject)________ Instructor's name________

****

ANALYSIS OF SESSION

TREATMENT

TYPE OF MATERIAL	Reading	Oral Ques.	Written Ques.	Discussion	Memory Devices	Other
Textbook						
Review book Workbook						
Teacher-made reading						
Tutor-made reading		✓	✓			
Vocab. (source						
Other						

STUDY SKILLS
____ Reading comp.
Taking notes:
____ from written material
____ from lecture
Devising memory
____ schemes
____ Using the dictionary
____ Using ref. books
____ Using the library
____ ________
____ ________

PROGRESS

Exam given [redacted] got 100%. Characteristics of the school age child + of the teenager. Post partum description of the uterus vagina cervix breasts + lochia. Nursing care. Marriage + family planning.

PROBLEMS (Discuss any: the materials, the tutees, your own preparation, the space, etc.)

The girls said they weren't getting back the last exam in nursing. They didn't do as well as expected + I wanted them to see where they fell short since in my opinion they knew the content + were well prepared. I was very surprised they (especially [illegible]) didn't do better

Evaluation of session 1 very poor 2 3 4 5 6 7 8 [✓ 9] 10 excellent

Material (or skills) to be covered during the next session Fertilization + a specific question + answer c̄ discussion. Quiz on all the material covered.

Signature of tutor________

NMG:bp
10-31-68
#3

KINGSBOROUGH COMMUNITY COLLEGE

NURSE TUTORING STUDY
of
The City University of New York

Tutoring Site [illegible]

TUTOR'S EVALUATION FORM

Names of tutees [redacted] ③⑦ Name of tutor Mr G. [redacted]

(39) [redacted] absent S.S No.

(64) [redacted] (adult)

Date [illegible] Time started [illegible] Time finished 2 Total time 2

Course (or subject) Biology Instructor's name

****

ANALYSIS OF SESSION

TREATMENT

TYPE OF MATERIAL	Reading	Oral Ques.	Written Ques.	Discussion explanation	Memory Devices	~~Other~~ Diagrams ~~Blackboard~~
Textbook	✓	✓		✓		✓
Review book Workbook	✓					✓
Teacher-made reading						
Tutor-made reading						
Vocab.(source						
Other ~~[illegible]~~					✓	

STUDY SKILLS

____Reading comp.
Taking notes:
____from written material
____from lecture
Devising memory schemes
____Using the dictionary
____Using ref. books
____Using the library
____ ---------------
____ ---------------

PROGRESS

[illegible] Review Mitosis
[illegible] genetic code, the cell.

PROBLEMS (Discuss any: the materials, the tutees, your own preparation, the space, etc.) [redacted]

A tutee from [redacted] [illegible]
[illegible] [illegible] [illegible]
ahead of [redacted]. I hadn't
expected to cover mitosis [illegible]
I could have been prepared [illegible]

Evaluation of session 1 very poor 2 3 4 5 6 [✓ 7] 8 9 10 excellent

Material (or skills) to be covered during the next session Review Meiosis

Signature of tutor [redacted]

NMG:bp
10-31-68
#3

KINGSBOROUGH COMMUNITY COLLEGE

NURSE TUTORING STUDY
of
The City University of New York

Tutoring Site Kingsboro

TUTOR'S EVALUATION FORM

Names of tutees [redacted] (59)
[illegible] [redacted] (37)

Name of tutor MR G [redacted]

S.S No.

Date [illegible] Friday Time started 1200 Time finished 200 Total time 2

Course (or subject)

Instructor's name

****

ANALYSIS OF SESSION

TREATMENT

TYPE OF MATERIAL	Reading	Oral Ques.	Written Ques.	Discussion	Memory Devices	Other diagrams
Textbook		✓				
Review book Workbook		✓	✓	✓		
Teacher-made reading				✓		✓
Tutor-made reading						
Vocab.(source						
Other						

STUDY SKILLS
- ____Reading comp.
- Taking notes:
  - ____from written material
  - ____from lecture
- ____Devising memory schemes
- ____Using the dictionary
- ____Using ref. books
- ____Using the library
- ____ ______________
- ____ ______________

PROGRESS

[illegible]

PROBLEMS (Discuss any: the materials, the tutees, your own preparation, the space, etc.)

[illegible] [redacted] [illegible]

Evaluation of session 1 very poor 2 3 4 5 6 7 [✓ 8] 9 10 excellent

Material (or skills) to be covered during the next session [illegible], heredity

Signature of tutor [redacted]

NMG:bp
10-31-68
#3

KINGSBOROUGH COMMUNITY COLLEGE

NURSE TUTORING STUDY
of
The City University of New York

Tutoring Site Kingsboro

TUTOR'S EVALUATION FORM

Names of tutees [redacted] (39)
[redacted] (32)

Mr G
Name of tutor [redacted]

S.S No. ______

Date [illegible] Time started 12 Time finished 2 Total time 2 hrs

Course (or subject) Biology Instructor's name ______

****

ANALYSIS OF SESSION

TREATMENT

TYPE OF MATERIAL	Reading	Oral Ques.	Written Ques.	Discussion [illegible]	Memory Devices	Other [illegible]
Textbook						
Review book Workbook		✓		✓		
Teacher-made reading		✓		✓		✓
Tutor-made reading				✓		
Vocab.(source						
Other [illegible]				✓		

STUDY SKILLS
____Reading comp.
Taking notes:
____from written material
____from lecture
Devising memory
____schemes
____Using the dictionary
____Using ref. books
____Using the library
____ ______________
____ ______________

PROGRESS
Genetics, mitosis + meiosis
[illegible] briefly

PROBLEMS (Discuss any: the materials, the tutees, your own preparation, the space, etc.)
Too much to cover in
too little time

Evaluation of session 1 very poor 2 3 4 5 6 7 [✓ 8] 9 10 excellent

Material (or skills) to be covered during the next session ______

Signature of tutor [redacted]

NMG:bp
10-31-68
#3

KINGSBOROUGH COMMUNITY COLLEGE

NURSE TUTORING STUDY
of
The City University of New York

Tutoring Site Manhattan Beach - Campus

TUTOR'S EVALUATION FORM

Names of tutees [redacted] ⑦
[redacted] ③

Miss M.
Name of tutor [redacted]

S.S No.

Date 11/21 Time started 8:45 Time finished 10:30 Total time 1 hr 45 min

Course (or subject) Biology 11 Instructor's name

****

ANALYSIS OF SESSION

TREATMENT

TYPE OF MATERIAL	Reading	Oral Ques.	Written Ques.	Discussion	Memory Devices	Other
Textbook		✓		✓		
Review book Workbook		✓				
Teacher-made reading						
Tutor-made reading						
Vocab. (source						
Other Lecture notebook + old tests				✓		

STUDY SKILLS
____ Reading comp.
Taking notes:
____ from written material
____ from lecture
Devising memory
____ schemes
____ Using the dictionary
____ Using ref. books
____ Using the library
____ ________________
____ ________________

PROGRESS

Girls eager to learn.
Concerned about test marks.
Wanted extra time to session.

PROBLEMS (Discuss any: the materials, the tutees, your own preparation, the space, etc.)

① room assigned already taken
① Angela only has taken no chem in HS
③ I did not have same edition of De Coursey.
④ girls left early. Had to be at West End for 11 AM class
⑤- lab way ahead of lecture.

Evaluation of session 1 very poor 2 3 4 5 [✓ 6] 7 8 9 10 excellent

Material (or skills) to be covered during the next session: Embryology + Meiosis for lab test 12/5. I will go back on Cell Structure if we have time.

Signature of tutor [redacted]

NMG:bp
10-31-68
#3

KINGSBOROUGH COMMUNITY COLLEGE ✓

NURSE TUTORING STUDY
of
The City University of New York

Tutoring Site West End

TUTOR'S EVALUATION FORM

Miss N

Names of tutees [redacted] ⑦
[redacted] ③

Name of tutor [redacted]

S.S No. 094-42-3514

Date 12/12 Time started 8:30 Time finished 10:30 Total time 2 hrs

Course (or subject) Biology 11 Instructor's name Mrs [illegible]

****

ANALYSIS OF SESSION

TREATMENT

TYPE OF MATERIAL	Reading	Oral Ques.	Written Ques.	Discussion	Memory Devices	Other
Textbook						
Review book Workbook		✓	✓			
Teacher-made reading						
Tutor-made reading						
Vocab.(source						
Other Lecture test				✓ from memory		

STUDY SKILLS
___ Reading comp.
Taking notes:
___ from written material
___ from lecture
Devising memory
___ schemes
___ Using the dictionary
___ Using ref. books
___ Using the library
✓ using text
___ & lab books

PROGRESS

the girls thought they did well on the lecture test and we went over things they remembered. They are both nice girls and I'm happy to be helping them

PROBLEMS (Discuss any: the materials, the tutees, your own preparation, the space, etc.)

the room assigned was occupied. No one room was empty for 2 hours. I was not prepared to discuss statistics

Evaluation of session 1 very poor 2 3 4 5 6 7 8 9 10 excellent

Material (or skills) to be covered during the next session Mathematical computation from microscope, conversions and statistical data (chi square, median, standard deviation.

Signature of tutor [redacted]

Notes: ① Please obtain copy of lecture test
② future lab supplements

NMG:bp
10-31-68
#3

Rooms 401 class at 9
506 " " 10
409 " " 11

KINGSBOROUGH COMMUNITY COLLEGE

NURSE TUTORING STUDY
of
The City University of New York

Tutoring Site [illegible]

Miss M.

TUTOR'S EVALUATION FORM

Names of tutees [redacted] ⑦
[redacted] ③

Name of tutor [redacted]

S.S No. 094-42-5514

Date 12/16/68 Time started 8 30 Time finished 10:30 Total time 2 hrs

Course (or subject) Biology II Instructor's name Mrs. [illegible]

****

ANALYSIS OF SESSION

TREATMENT

TYPE OF MATERIAL	Reading	Oral Ques.	Written Ques.	Discussion	Memory Devices	Other
Textbook						
Review book Workbook						
Teacher-made reading						
Tutor-made reading			✓	✓		
Vocab. (source						
Other Lec.		✓	✓	✓		

STUDY SKILLS

- ____ Reading comp.
- Taking notes:
  - ____ from written material
  - ✓ from lecture
- ____ Devising memory schemes
- ____ Using the dictionary
- ____ Using ref. books
- ____ Using the library
- ____ ____________
- ____ ____________

PROGRESS

completed chi-square +
statistics + applications
Girls understood the
mechanisms of the crossing.

PROBLEMS (Discuss any: the materials, the tutees, your own preparation, the space; etc.)

no problems with the girls
I did not have the textbook
(Villee). Covered genetics from
my textbook

Evaluation of session 1 very poor 2 3 4 5 6 7 8 [✓ 9] 10 excellent

Material (or skills) to be covered during the next session Genetics II
Concentrated review for Bio final

Signature of tutor [redacted]

NMG:bp
10-31-68
#3

KINGSBOROUGH COMMUNITY COLLEGE

NURSE TUTORING STUDY
of
The City University of New York

Tutoring Site KCC

TUTOR'S EVALUATION FORM

Names of tutees [redacted] (89)
[redacted] (90)

MR. Gr.
Name of tutor [redacted]

S.S No. 131-40-8135

Date 3/24/69 Time started 11:00 Time finished 12:30 Total time 1½ hrs

Course (or subject) English 2 Instructor's name Miss Rothberg

****

ANALYSIS OF SESSION

TREATMENT

TYPE OF MATERIAL	Reading	Oral Ques.	Written Ques.	Discussion	Memory Devices	Other
Textbook	✓			✓		
Review book Workbook						
Teacher-made reading						
Tutor-made reading	✓		✓			
Vocab.(source						
Other						

STUDY SKILLS
____ Reading comp.
Taking notes:
____ from written material
____ from lecture
Devising memory schemes
✓ Using the dictionary
____ Using ref. books
✓ Using the library
____ ----------------
____ ----------------

PROGRESS

Reviewed midterm questions and how to answer certain questions in general; spelling and punctuation, vocabulary source.

PROBLEMS (Discuss any: the materials, the tutees, your own preparation, the space, etc.)

Girls hadn't read their assignment, and book didn't have the assigned story.

Evaluation of session 1 very poor 2 3 4 5 6 7 [✓ 8] 9 10 excellent

Material (or skills) to be covered during the next session Review of papers handed in this week and stories to be covered

Signature of tutor [redacted]

NMG:bp
10-31-68
#3

KINGSBOROUGH COMMUNITY COLLEGE

NURSE TUTORING STUDY
of
The City University of New York

Tutoring Site KCC

Mr. Gr.

TUTOR'S EVALUATION FORM

Names of tutees [redacted] (89)
[redacted] (90)

Name of tutor [redacted]

S.S No. 131-40-8135

Date 4/28/69 Time started 11:00 Time finished 12:30 Total time 1.5 hrs.

Course (or subject) English 2 Instructor's name Miss Rothberg

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ANALYSIS OF SESSION

TREATMENT

TYPE OF MATERIAL	Reading	Oral Ques.	Written Ques.	Discussion	Memory Devices	Other
Textbook		✓	~~✓~~	✓		
Review book Workbook						
Teacher-made reading						
Tutor-made reading		✓	✓	✓		
Vocab.(source						
Other						

STUDY SKILLS
____Reading comp.
Taking notes:
____from written material
____from lecture
Devising memory
____schemes
____Using the dictionary
____Using ref. books
____Using the library
____ ______________
____ ______________

PROGRESS

working on Grammar Review sheet; grammar in general, punctuation;

PROBLEMS (Discuss any: the materials, the tutees, your own preparation, the space, etc.)

Girls were listless; didn't respond, no assignments for the week and had no questions to ask me

Evaluation of session 1 very poor 2 3 4 5 6 [✓ 7] 8 ~~9~~ 10 excellent

Material (or skills) to be covered during the next session Discussion of stories over the week and Discussion of their papers that have been graded.

Signature of tutor [redacted]

NMG:bp
10-31-68
#3

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Tutoring Site KCC

Mr. Gr.

TUTOR'S EVALUATION FORM

Names of tutees [redacted] (84)
[redacted] (90)

Name of tutor [redacted]

S.S No. 131-40-8135

Date 3/10/69 Time started 11:00 Time finished 12:30 Total time 1.5 hrs

Course (or subject) English X Instructor's name ____

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ANALYSIS OF SESSION

TREATMENT

TYPE OF MATERIAL	Reading	Oral Ques.	Written Ques.	Discussion	Memory Devices	Other
Textbook	✓	✓		✓		
Review book Workbook						
Teacher-made reading						
Tutor-made reading						
Vocab. (source						
Other						

STUDY SKILLS
____ Reading comp.
Taking notes:
____ from written material
____ from lecture
____ Devising memory schemes
____ Using the dictionary
____ Using ref. books
____ Using the library
____ ____________
____ ____________

PROGRESS
Simple sentence structure; short story analysis and grammar errors

PROBLEMS (Discuss any: the materials, the tutees, your own preparation, the space, etc.)
[redacted] brighter than [redacted] girls failed to bring all their marked compositions in to class

Evaluation of session 1 very poor 2 3 4 5 6 7 [✓ 8] 9 10 excellent

Material (or skills) to be covered during the next session Short stories; punctuation grammar

Signature of tutor [redacted]

NMG:bp
10-31-68
#3

(3)

KINGSBOROUGH COMMUNITY COLLEGE

NURSE TUTORING STUDY
of
The City University of New York

Tutoring Site Kingsborough

MR. S.S.

TUTOR'S EVALUATION FORM

Names of tutees [redacted] -1 hr (80)
[redacted] (8)

Name of tutor [redacted]

S.S No. 101-36-2534

Date 5-14-69 Time started 2:30 Time finished 4:30 Total time 2 hrs.

Course (or subject) Bio 12 Instructor's name BIERMAN

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ANALYSIS OF SESSION

TREATMENT

TYPE OF MATERIAL	Reading	Oral Ques.	Written Ques.	Discussion	Memory Devices	Other Diagrams
Textbook				✓		
Review book Workbook						
Teacher-made reading						
Tutor-made reading						
Vocab. (source Student Notes				✓		
Other Lecture Notes		✓		✓		✓

STUDY SKILLS
___ Reading comp.
Taking notes:
___ from written material
___ from lecture
Devising memory
___ schemes
___ Using the dictionary
___ Using ref. books
___ Using the library
___ _______________
___ _______________

PROGRESS

Neuron Structure
Began Nervous System
Synapse
Reflex Arc

PROBLEMS (Discuss any: the materials, the tutees, your own preparation, the space, etc.)

Answered individual lecture comments - from the girl's notes on the nervous system. Reread lecture notes & I explained all the detail.

Evaluation of session 1 very poor 2 3 4 5 6 7 [✓ 8] 9 10 excellent

Material (or skills) to be covered during the next session Nervous System & Eye & EAR

Signature of tutor [redacted]

NMG:bp
10-31-68
#3

KINGSBOROUGH COMMUNITY COLLEGE

NURSE TUTORING STUDY
of
The City University of New York

Tutoring Site Kingsborough

TUTOR'S EVALUATION FORM

Names of tutees [redacted]

Name of tutor Mr. M. [redacted]

S.S No. 101-36-2534

Date 5-7-69 Time started 2:30 Time finished 4:30 Total time 2 hrs

Course (or subject) Bio 12 Instructor's name Boorman

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ANALYSIS OF SESSION

TREATMENT

TYPE OF MATERIAL	Reading	Oral Ques.	Written Ques.	Discussion	Memory Devices	Other Diagrams
Textbook	✓			✓		✓
Review book Workbook		✓		✓		
Teacher-made reading						
Tutor-made reading						
Vocab. (source Student notes				✓		
Other Tutor Notes		✓		✓		✓

STUDY SKILLS
____Reading comp.
Taking notes:
____from written material
____from lecture
Devising memory
____schemes
____Using the dictionary
____Using ref. books
____Using the library
____ ______________
____ ______________

PROGRESS
Urinary system & kidney
Reproductive system
Blood typing
Rh factor

PROBLEMS (Discuss any: the materials, the tutees, your own preparation, the space, etc.)
Too much material given in too short a period of time. ~~[illegible]~~ she had reached her optimum [illegible] retention point after the 1st hr. — but she wanted me to cover the other topics.

Evaluation of session 1 very poor 2 3 4 5 6 7 [✓ 8] 9 10 excellent

Material (or skills) to be covered during the next session Review of U-G systems
The Nervous system

Signature of tutor [redacted]

NMG:bp
10-31-68
#3

KINGSBOROUGH COMMUNITY COLLEGE

NURSE TUTORING STUDY
of
The City University of New York

Tutoring Site Kingsborough

TUTOR'S EVALUATION FORM

Names of tutees [redacted]
(35) [redacted]

Name of tutor [redacted]

S.S No. 101-36-2534

Date 4-30-69 Time started 12:30 Time finished 2:30 Total time 2 hrs.

Course (or subject) Bio Instructor's name Bierman

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ANALYSIS OF SESSION

	TREATMENT					
TYPE OF MATERIAL	Reading	Oral Ques.	Written Ques.	Discussion	Memory Devices	Other Diagrams
Textbook						
Review book Workbook		✓		✓		
Teacher-made reading						
Tutor-made reading						
Vocab. (source						
Other						

STUDY SKILLS
____Reading comp.
Taking notes:
____from written material
____from lecture
Devising memory
____schemes
____Using the dictionary
____Using ref. books
____Using the library
____ ______________
____ ______________

PROGRESS
Began discussion of Urinary System
Review of some questions of Lecture Exam #2

PROBLEMS (Discuss any: the materials, the tutees, your own preparation, the space, etc.)
Did not have ample question from exam to actually see where my tutees ~~[illegible]~~ had their problems.

Evaluation of session 1 very poor 2 3 4 5 6 [✓ 7] 8 9 10 excellent

Material (or skills) to be covered during the next session Reproductive & Urinary systems today.

Signature of tutor [redacted]

NMG:bp
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APPENDIX IV

SUGGESTED PROCEDURES

NURSE TUTORING STUDY
of
The City University of New York

SUGGESTED PROCEDURES

1st Semester

PUBLICITY: COLLEGE STAFF

Have ready and send to those listed below-
a copy of the abstract of the grant and
a brief statement of the kinds of material
or services you'll need (from each individual).

Nursing Instructors
Dean of Admin.
Registrar
Bookstore
Editor of Newspaper
Office Services Manager

PUBLICITY: NURSING STUDENTS

1. Post signs around nursing office, nursing rooms, bio labs that tutoring will be available.
2. Have nursing instructors announce program, stressing its intra-city nature and federal backing; its importance for future nursing programs, for students individually, etc.

MAJOR OUTREACH

1. Have nursing instructors distribute Request for Tutoring slips. (Between Course and Instructor's Name add Immediately__Later__. Change "free hours" line to "All the hours I can be tutored are:".)
   Ask nursing instructors to encourage Saturday: more tutors are available.
2. Have nursing teachers collect forms right then. (If not, they'll be lost.)

RECRUITMENT OF TUTORS

For Community College Tutors:

1. Send copy of grant abstract and cover letter to chairmen of dep'ts in whose subjects you'll have tutoring. (Include abstracts for instructors.) If possible, arrange conferences. Ask them to have

2nd Semester

PUBLICITY: COLLEGE STAFF

Have ready and send to those listed below-
a note of thanks
+a copy of your individual progress report (or findings)
*a copy of the Project Director's report

*+ Head of Nursing
+ Nursing Instructors
+ Instructors of tutored subjects
*+ President of College
*+ Dean of Admin.
*+Registrar
+Editor of Newspaper
Bookstore
Office Services Manager

PUBLICITY THROUGH EVALUATION: NURSING STAFF

1. Compare failures in nursing course with those in other subjects.
2. Spend time going over individual cases. Share other observations.

MAJOR OUTREACH

1. Have nursing instructors distribute Request for Tutoring (modify as on left and add Grade next to Course) and collect.

RECRUITMENT OF TUTORS

At end of first semester-

1. Poll tutors for their assessments of tutees' weaknesses and for their suggestions for better implementation of the program.

their instructors distribute Request to Tutor forms to A & B students. (Forms should bear your room number and extension.)

2. Put ad in college paper. (Model below.)

> TUTORS NEEDED
>
> Public Health Service Grant
> Bio, Nursing, Psych, English, Math
> Call 769-9200 x220
> or
> Apply in Nursing Office (S132)

3. Who Tutors
   All subjects - majors (transfer students)
   Nursing - nursing students*
   *They may also tutor bio and psych, if necessary.

For Senior College Tutors:

I. Same as 1 and 2 above

2. Send letters to various clubs or societies.

3. Who Tutors
   All subjects - majors*
   Nursing - Senior College: Hunter-Bellevue
   *(Try for juniors and seniors.)

ORIENTATION OF TUTORS

Call tutors for meetings. (Use telephone.)

1st meeting:
1. Lecture-demonstration on methods of teaching
2. Instruct in filling out Tutor's Evaluation Form.

2nd meeting:
1. Prepare schedules.+
2. Distribute syllabi & texts;* sign out latter.

+ Make slips for each tutee indicating free time and subject; paste up, and have tutors choose.

* Try to have subject instructors at this meeting.

Have nursing instructors distribute Notice of Tutoring Appointment Forms. ⟶

Set up rooms for tutoring. ⟶

2. Distribute Request to Tutor forms for return after registration.

3. Send letters commending outstanding tutors.

4. Follow up tutors you didn't use.

Distribute - Student's Evaluation of Tutoring and Student's Self-Evaluation forms. Collect, tabulate and analyze; use for training tutors, reports to nursing staff, etc.

ORIENTATION OF TUTORS

Meeting:

1. Review last semester's work.
   a. Tutees' grades
   b. Tutors' compiled recommendations

2. Prepare schedules.
   a. Service F & D students first
   b. Match likes in groups.
   c. Note kids with poor attendance.

3. Distribute syllabi & texts; (sign out latter.)

IMPLEMENTATION: FIRST WEEKS

Try to arrange your hours to coincide with major times of tutoring. →

Give tutors card with their tutoring hours and phone no's. of tutees. →

Have tutor & tutees meet in your office (before session). →

Spend time with tutor after each session going over Evaluation Form. → once or twice with "old" tutors; more times with new

Insist that tutors and tutees call each other and your office if they can't keep an appointment. →

Have meeting of tutors to discuss common problems and observations. →

IMPLEMENTATION: GENERAL

Get marks of whole class in all subjects you have tutoring in. (Keep up to date.) Get info. on how exams are weighted, etc. →

Have periodic meetings with tutors. →

Keep a log of all interesting things and observations. Try to write up your "results" or observations and discuss with concerned individuals. →

Keep people posted on what's happening. →

Keep yourself informed on college and departmental procedures that may involve your kids, e.g. index necessary for retention, mid-terms, etc. →

Have a loose-leaf notebook (or good file) where you keep:
  tutors' names, addresses, phone no's, etc.
  students " " " " "
  tutors' programs
  students' programs
  tutors' hours of work
  students' grades
  textbook orders
  samples of all printed material, etc. →

PEOPLE	HOW THEY CAN HELP YOU	HOW YOU CAN HELP THEM HELP YOU
Head of Nursing	1. Personal space & secretarial time 2. Publicity for program 3. Introduction to Dean of Faculty Dean of Admin., etc. 4. Information a. Requirements for admission b. Requirements for retention c. General (school policies, etc.)	Give overview of tutoring program; review research aspect. Make clear the obligations of the college. Ask for suggestions for implementation locally.
Nursing Staff	1. Thorough description of nursing program 2. Publicity for program amongst students 3. Aid with distribution and collection of forms 4. Nursing marks 5. Info. on specific kids 6. Feedback	Meet with them early to go over tutoring program. Hear their analyses of problem. Give your own. Keep them posted on all "results"; give them formal reports where possible. In general, try to provide them with info. about their students.
Subject Teachers	1. Syllabi (and names of texts) 2. Marks throughout the term 3. Old exams (for review) 4. Praise for kids who've improved 5. Info. on specific kids 6. Tutors (where c.c. tutors are being used)	Most of above for Nursing Staff. Try to arrange meetings with tutors.

Keep in mind

1. The college must cooperate. The project (in your person) is providing them with a FREE SERVICE. And - if our results are good, they can ask for supplemental monies in the future.
2. For publicity and morale reasons, write up and distribute (to college people) reports on any meaningful data and/or observations.
3. Try to have all papers seen or used by students and faculty well laid out and neatly typed. In general, be ad hoc as little as possible.
4. You will inevitably be looked upon by the kids you're tutoring as something of a counselor. So that you both represent the program well and be of direct use to the kids, make yourself knowledgeable about everything that might concern them.

NMG/bp